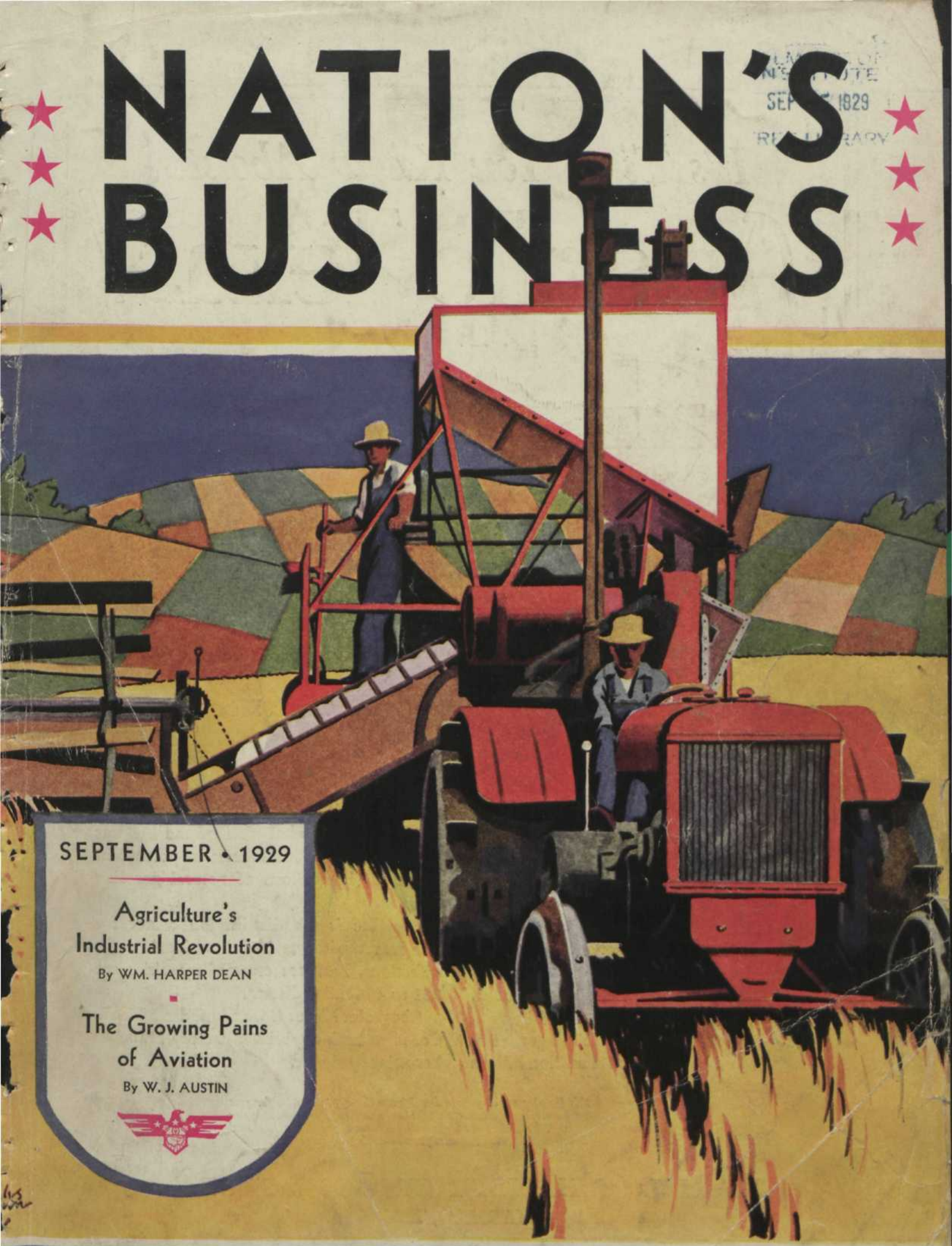
NATION'S BUSINESS

SEP 1929



SEPTEMBER • 1929

Agriculture's Industrial Revolution

By WM. HARPER DEAN

The Growing Pains of Aviation

By W. J. AUSTIN

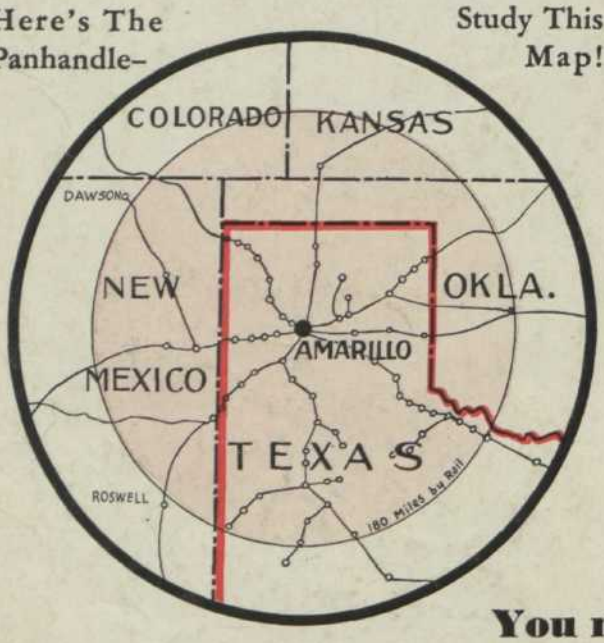
MORE THAN 300,000 CIRCULATION

It's Time You Knew About

Amarillo Texas!

Here's The Panhandle–

Study This Map!



The Capital of Its Own Empire in the Texas Panhandle

Rail . . . wholesale and retail distribution . . . financial . . . highway . . . and air center of a rich area the size of Pennsylvania.

You need a Branch House Here!

A Few Facts . . .

POPULATION of Amarillo increased from 15,494 in 1920 to 45,920 today. Trade territory population has doubled in these nine years. Now estimated at 500,000.

Texas Panhandle had 21.4% of the new rail construction of the entire U. S. during 1927 and 1928 . . . 380½ miles.

42,000,000 bushel wheat crop just harvested . . . Amarillo bank deposits increased $10,679,000 in 21 days.

Texas Panhandle has world's largest natural gas field, estimated at 111 million billion cubic feet. Also 55% of U. S. carbon black production; practically all of the helium; and produces 90,000 barrels of petroleum and 500,000 gallons of natural gasoline daily.

Amarillo is the distribution center for this great territory, with rail outlets in eight directions. Nearest competitive cities are 221 to 464 miles distant.

Chevrolet Motor Co. and Hudson Motor Co. have both established factory branches here since July 1st.

Amarillo and this Empire want you to investigate the opportunities for you and your business here. Every assistance to obtain information about your particular interest will be given; and general literature about the city and the Panhandle-Plains is yours for the asking. Write:



AMARILLO CHAMBER OF COMMERCE
AMARILLO, TEXAS



FREIGHTER EXPRESS—*grain sides available—demountable canopy top also obtainable.*



PACKET SCREEN—*a brilliant departure from customary construction. Screen body of similar design for Freighter.*

PACKET COMMERCIAL SEDAN—*convertible for passenger or merchandise transportation.*





FREIGHTER EXPRESS—*with demountable canopy top—screen sides available—generous loading space.*

See the Complete

FARGO

Line of Six Cylinder Trucks

All conventional body types are smartly represented in the line of Fargo bodies. Original designs in every case—born of Chrysler genius for combining the distinctive with the practical. Here at last is something that is comparable to the finest in passenger car engineering.

Prestige in appearance, character in construction, unchallenged competence in delivery performance—these are attributes of the Fargo ½, ¾ and 1-ton chassis, alike.

These great chassis—the Packet, the Clipper and the Freighter—are all six-cylinder powered; Chrysler powered, Chrysler designed, Chrysler built! They cover 83% of all truck requirements. They will doubtless fit *your* requirements.

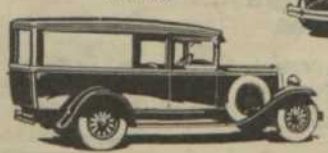
To see these Fargo trucks is to admire them, and appreciate their greater profit possibilities, instantly. See them and inspect them.

PRICES

FARGO ½-TON PACKET—*Chassis $595; Panel $845; Screen $845; Canopy $835; Sedan $945.* FARGO ¾-TON CLIPPER—*Chassis $725; Panel $975; Screen $975; Canopy $965; Sedan $1075.* FARGO 1-TON FREIGHTER—*Chassis $795. The complete line of bodies, of outstanding appearance and construction, includes panel, stake, canopy, express and platform. All prices f. o. b. factory. Fargo dealers extend the convenience of time payments.*

FARGO

6-FOOT CANOPY—*for ½ and ¾-ton chassis. Seats for seven passengers available. Concealed curtains.*





FREIGHTER GRAIN BODY—*a rigid body of selected hardwood construction. Ample proportions.*

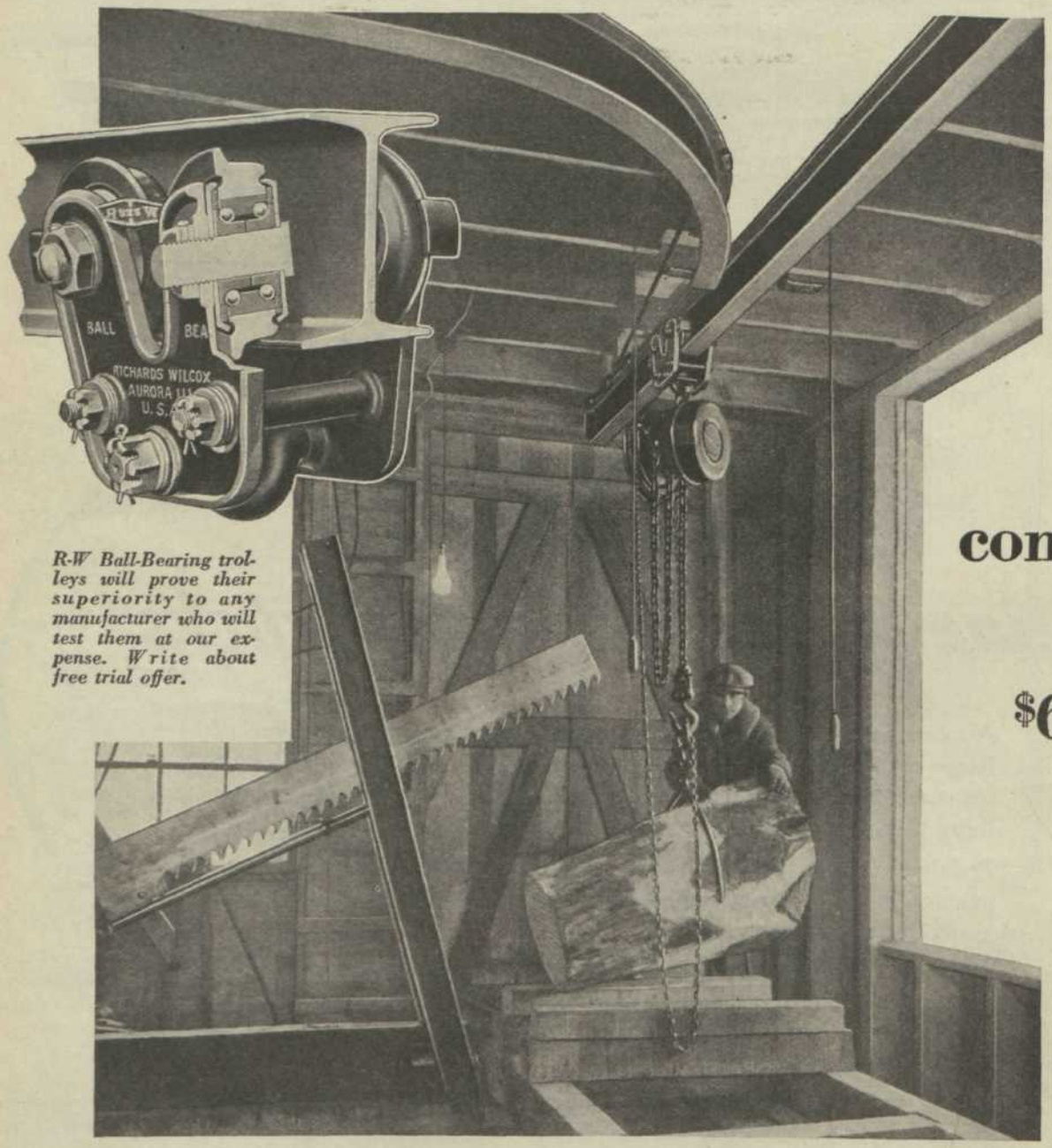
FREIGHTER STAKE—*exceptionally rugged construction—available as platform or with 45" or 27" stakes.*





THE FREIGHTER PANEL—*an ultra-modern panel body of custom-built smartness. Similar bodies for ½ and ¾-ton chassis.*

Nation's Business is published on the 30th of every month by the Chamber of Commerce of the United States, Washington, D. C. Subscription price $3.00 a year; $7.50 three years; 25 cents a copy. Entered as second-class matter March 20, 1920, at the Post Office at Washington, D. C., under the Act of March 3, 1879.



R-W Ball-Bearing trolleys will prove their superiority to any manufacturer who will test them at our expense. Write about free trial offer.

How one company saves $6000.00 a year

MUCH of the beautifully grained walnut paneling seen in fine furniture and cabinet work is sawed from walnut stumps. These stumps weigh from 500 pounds to 1½ tons, and their irregular shapes are difficult to handle.

The Dayton Veneer Company, Dayton, Ohio, found it a hard task to handle walnut stumps until they installed a Richards-Wilcox OveR-Way System in 1928.

This System, which is about 1200 ft. long, was designed by Richards-Wilcox engineers. The heavy weight and irregular sizes of the material made it necessary that curves and switches be laid out with the greatest care.

Running on the Steel-Beam track are chain hoists, mounted on R-W Ball Bearing Trolleys and equipped with sharp pointed tongs which tightly grip any stump or log, regardless of its size, shape, or weight.

The OveR-Way System picks up stumps and logs from the storage yard, conveys them to tanks of hot water where they are soaked, then through the bark removing operation to a splitting saw, and finally to the mill.

With the OveR-Way System, 2 men can easily do work that formerly required 6 to 8 men, saving this company about $6000 a year in labor.

Richards-Wilcox engineers are equipped to solve any handling problem. Why not get their advice?

Richards-Wilcox Mfg. Co.

"A Hanger for any Door that Slides."

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Boston Philadelphia Cleveland Cincinnati Indianapolis St. Louis New Orleans Des Moines Minneapolis Kansas City Los Angeles San Francisco Omaha Seattle Detroit

Montreal · RICHARDS-WILCOX CANADIAN CO., LTD., LONDON, ONT. · Winnipeg

When a dozen competitors are offering practically the same product at the same price, how can you give yourself a sales advantage? This page tells.



Harder *to make sales this year?*

THE QUESTION answers itself. It is harder, in almost every business, to make sales this year. It will be still harder to make sales next year.

Quantity production has tended to erase differences between competing articles. Quality and price have tended to become standardized. When a dozen competitors are offering practically the same product at the same price, the winner is going to be the one who has just a little edge in the matter of sales.

How can you give yourself a sales advantage?

The question is pertinent whether you are in the sales, or production, or the engineering department of your business. How can you contribute something to sales effectiveness that will give you an advantage—no matter how slight—over your competitors both inside and outside the organization?

By having a definite, organized knowledge of the principles and methods of modern business. By profiting from the knowledge and experience of leading educators and business executives who have prepared the Modern Business Course and Service. By having the personal guidance of a staff of over fifty specially trained men in every phase of business.

A Gold Mine of Ideas

In other words, you can get the sales advantage you want by enlisting the cooperation and help of the Alexander Hamilton Institute—an institution that is international in scope—that brings to your office or home the principles and methods that have been found successful in business of all kinds.

The Alexander Hamilton Institute is not a cure-all. It claims no miracles. It makes no fancy promises. In the simplest, most straightforward possible language it claims simply this—that its Modern Business Course and Service is a gold mine of methods and suggestions; that its lectures are written by business leaders whom any wise man would gladly travel a hundred miles to meet; and that its personal service has solved thousands of problems and helped to close thousands of sales.

If, with all this equipment, you can be even 1% more effective than your competitor, you will be making a worthwhile investment.

If, by glancing through the Course, you can gather one new idea a month, you will vastly widen the scope of your influence.

If you know something about the business problems of every other line of business, you must inevitably increase sales in your *own* business.

These are very conservative statements. We should like to follow them up by sending you a little book called "Forging Ahead in Business." And we invite confidential inquiries from any man who is interested in putting himself ahead, not ten years from now, but today and tomorrow, and next week.

Announcing Three New Management Courses

The rapid developments in modern business have brought increasing demand for an extension of Institute service to executives.

To meet this demand the Institute now offers three new Management Courses in addition to its regular Modern Business Course and Service. These are a Course and Service in:

1—Marketing Management
2—Production Management
3—Finance Management

These new courses are of particular interest to younger executives who want definite training in the management of the particular department of business in which they are now engaged.

The details of this interesting development in business training are included in the booklet which the coupon will bring you. Send for it.

To the Alexander Hamilton Institute, 901 Astor Place, New York City. (In Canada address Alexander Hamilton Institute, Ltd., C. P. R. Building, Toronto.)

Send me the latest edition of "Forging Ahead in Business," together with full information about the new Management Courses.

NAME.....

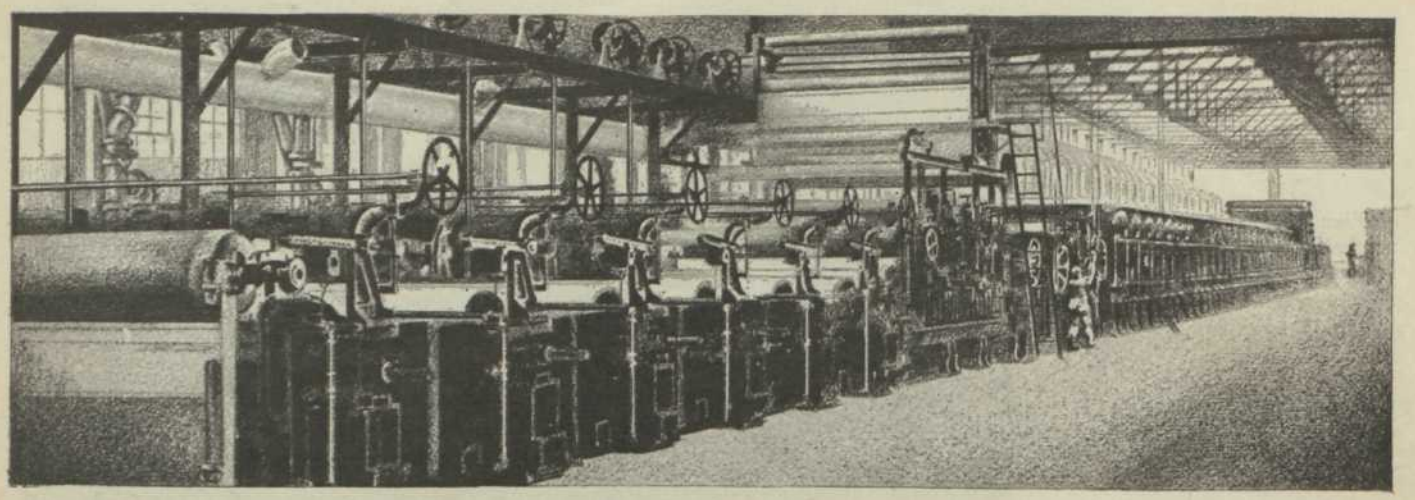
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THIS MONTH AND NEXT

THE EDITOR returned from Europe and summoned the staff about him.

"What," he asked, "are these reports of quarreling in the editorial room?"

"There is no quarrel," the office peacemaker said. "The staff merely does not agree on which is the best article in the September number. There's really nothing to argue about."



W. H. Dean

"Of course not," interrupted the man from the Middle West. "It is perfectly plain that William Harper Dean's article, 'Agriculture's Industrial Revolution,' is by far the most important. He shows that modern methods of mass production on the farm are changing the whole agricultural situation. He answers every farm question—the migration to cities, farm relief, labor, everything."



S. O. Dunn

"Yes," said the man who flew in the war—and won't let anyone forget it, "suppose he does? Is that any more important than W. J. Austin's article that answers every question about aviation? Everybody knows about agriculture but how many people know about aviation, the big new industry? How many know that passenger traffic doesn't pay—and why; what air mail is doing, and why; just why there aren't better airports; why some companies may be losing money even if they seem to show a profit? How many people know that?"



T. C. Powell

"And how many people care, compared to the number that care about railroad rates?" asked another. "Everybody either rides on trains or ships goods on them. That's why Samuel O. Dunn's article, 'What the O'Fallon Decision Means,' is the best thing we've got. Everybody wants to know if the Supreme Court decision is going to make transportation cost more. Mr. Dunn

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Resources over $650,000,000

IRVING TRUST COMPANY

Out-of-Town Office—Woolworth Building

New York

knows railroads. His views are important. There's the most important story, if you ask me."

There were other views. One young man staunchly supported Thomas C. Powell's article, "Towns Have What Cities Promise," a discussion of the advantages of the small city as compared to the large. Mr. Powell asserts that every community should be a happy place to live and that the smaller the population the better the chance for happiness. He also offers some figures to prove that small plants, contrary to popular belief, are more efficient than large ones.



B. Russell

Another was energetic for Bertrand Russell's article, "The Sedentary Age," which describes a little mentioned trend in the modern management of business. Still another proclaimed that John D. Miller's article, "The Dairymen See It Through," provides not only helpful information but inspiration for any industry that could be benefited by cooperation. After several attempts, another young man got the floor to present the case of Meyer Davis' contribution, "How We've Set Business to Music," a thoroughgoing discussion of the need for business principles in running a chain of orchestras.



G. B. Everitt

Several others were clamoring to be heard but the editor threw up his hands.

"Help," he gasped, "I've had enough. I want to know, though, what is scheduled for October."

The man who arranges the magazine spoke up.

"George B. Everitt, president of Montgomery Ward, has written an article on the effect of chain stores on independent merchants; Senator Reed Smoot tells the dangers of bureaucracy; Gifford R. Hart suggests some interesting results if men become as style conscious as women and P. W. Litchfield, president of the Goodyear Tire & Rubber Company, has contributed an interesting article on Zeppelins."



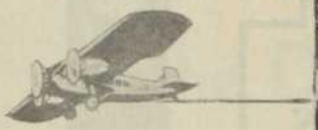
G. R. Hart

"The most important of those," began a bright young man, but the editor waved his arms.

"Get out," he said. "All of you."

Industry follows population *to* LOS ANGELES COUNTY



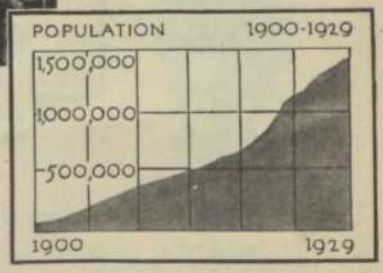




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of the Pacific Coast States' added

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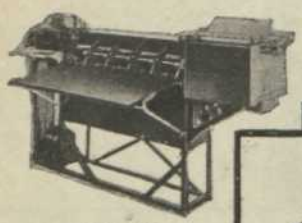
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It is therefore evident that a closer supervision is needed on the part of management in order to eliminate a vast amount of unnecessary loss, and thereby turn potential profit into *real* profit.

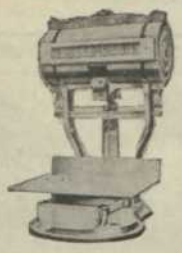
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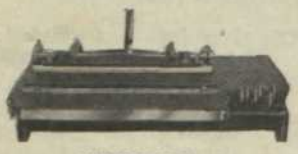
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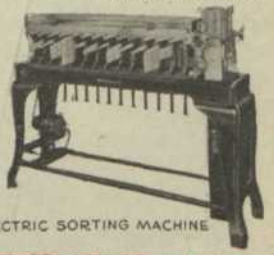
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NATION'S BUSINESS
★
A MAGAZINE FOR BUSINESS MEN

The Dawn of a New Profession

POLITICAL observers have had reason enough for saying that economic experts rush in where statesmen fear to tread. It is just as true that the world will find more help than harm in the fact that the new profession of the international doctor is developing in this country. Its practitioners prescribe and administer remedies in taxation, budget-making, banking, railway operation, fiscal control, and export trade financing.

These new healers do not drug their patients with doctrinaire dosages. In their hands the "dismal science" becomes a healing art on which whole peoples thrive. For these are ministers who are able to work out economic salvation in national emergencies. They help going countries to keep going. They put new life in countries that have run down.

Through their wisdom and experience nations that have been bad risks are put back among the world's good accounts.

Such a service provides its own distinction. Yet appreciation lags for want of publicity. The arrival of an international doctor on a case is big news at his destination. Not always does it magnetize attention in his native land.

Like the prophet, his recognition is far greater abroad than it is at home. But careers so unique cannot long remain strangers to the front page.

Given time and circumstances, the public accords its own measure of "Who's Who" in the world, and though its acknowledgment be long deferred it eventually confers its highest honorary degrees. Whether or not these economic physicians are loaded down with academic dignities, their fame is secure in the hearts of grateful peoples.

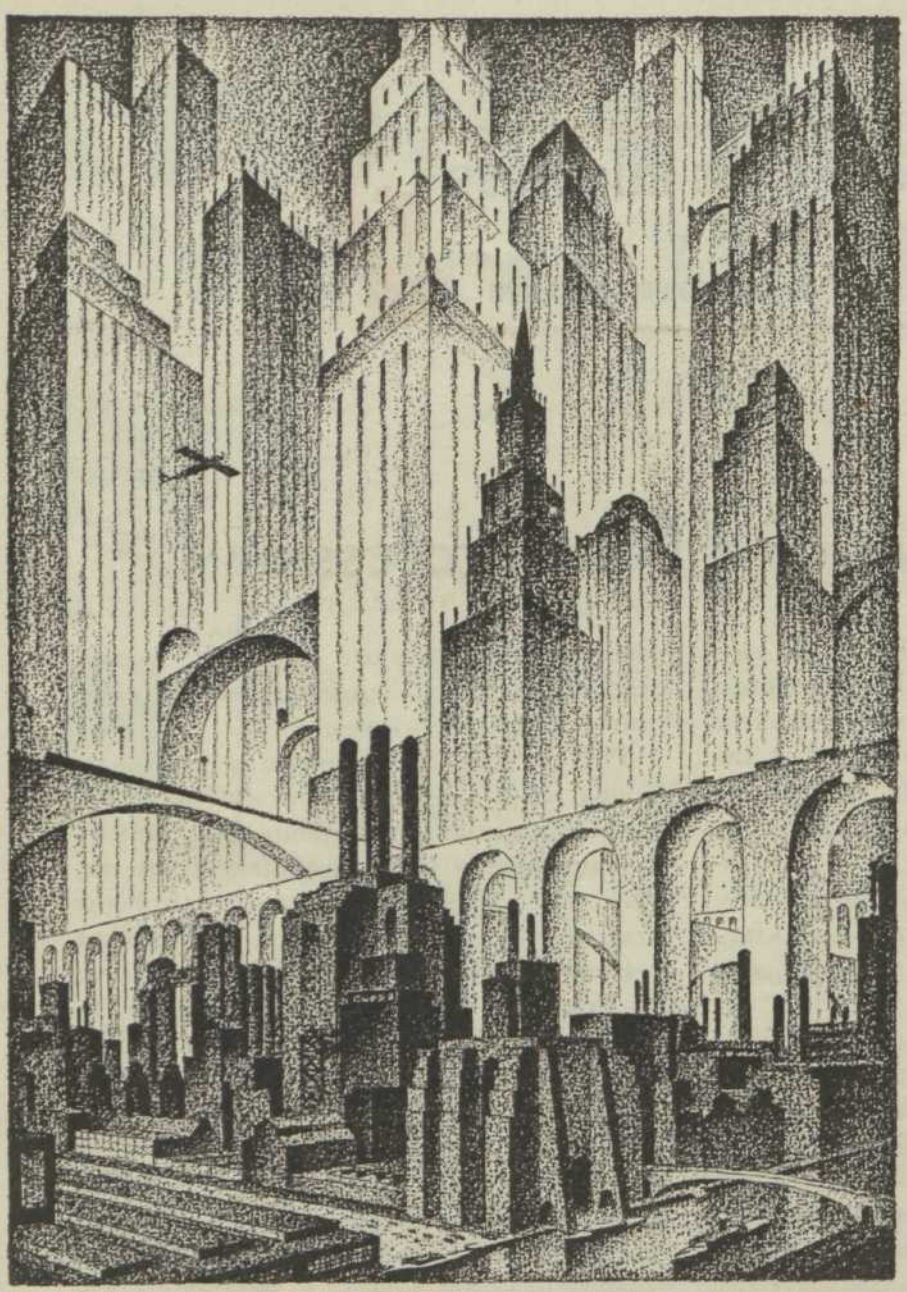
The service of a Morgan, a Dawes, a Young, or a Lamont is the stuff of which world-wide headlines are made. But the useful exemplars of this new profession are not confined to these great names. In brilliant practice others hold deserved place. That veteran internationalist, Edwin Kemmerer of Princeton, is now financial adviser to China, and with him is Dr. Arthur Nichols Young, lately counselor to governments in Mexico and Honduras.

Charles S. Dewey is financial adviser to Poland. Jeremiah Smith straightened out Hungary. Arthur C. Millspaugh was adviser to Hayti, and for five years directed the finances of Persia. Charles P. Howland supervised the exchange of Turkish and Greek populations.

Jeremiah Jenks is a member of the High Commission of Nicaragua. Ernest P. Goodrich, formerly chief engineer of the Bush Terminal Company, of New York City, and Henry K. Murphy, New York architect, are developing the port of Canton and planning China's new capital.

Still other names have their significance in other scenes. The roll is long enough to argue belief that this new profession is growing. Here is a career which offers consultations that endure for years. The results invite the conclusion that the pen of the international doctor is a better instrument for curing an ailing world than the sword of a generalissimo.

R. C. W.



Hundreds of the country's leading industries have endorsed the Austin Method of Undivided Responsibility for handling big building projects. Under this method, design, construction and building equipment are all handled by one organization under one contract which guarantees in advance: 1. Low total cost for the complete project. 2. Completion within a specified short time. 3. High quality of materials and workmanship.

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Thinking, planning, seeing ahead, many companies meet new conditions before they become acute, profit by them. Laggards are forced out.

Austin's nation-wide organization helps business executives to keep their plants ahead of the times, to set the pace for their industry, to take advantage of the new and better methods that make the margin between success and failure.

Factories for straight line production, modern boiler and power plants to save thousands of wasted dollars, warehouses for more economical distribution—these are typical of Austin's engineering and construction activities from Coast to Coast.

Austin can often offer suggestions of real value. A consultation will help you in planning improvements or expansions in plant facilities anywhere.

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SEPTEMBER, 1929 VOLUME XVII No. 10

NATION'S BUSINESS

Published at Washington by the Chamber of Commerce of the United States
MERLE THORPE, Editor

As the Business World Wags

THUS WE MAY SEE, QUOTH HE,
HOW THE WORLD WAGS—*As You Like It*

Something New in Autos ★

THE world had come to think of the automobile industry as fairly static. Cars, it seemed to us who bought them, were beginning to be about alike except in refinement and size; methods of selling seemed to be more or less standardized; if the "saturation point" hadn't been reached, at least pretty nearly every one we knew had at least one car and some had two.

And now comes a man who proposes to do something revolutionary both in making and selling cars. The New York *Times* attaches enough news value to his plan to give him a front-page place. He proposes to build—in fact has built—a car which weighs but 600 pounds, has a 60-inch wheelbase and introduces revolutionary changes in construction.

More than that, the maker proposes to sell it through a mail-order house and deliver it in a packing-box container that can be used as a garage.

The proposal to make cars smaller is no new thing. An American company plans to build over here the English Austin car with its 76-inch wheelbase—less than three-quarters that of Mr. Ford's Model A. The price and the way of selling are the factors that may most interest the business world. A 60-inch wheelbase, 600-pound car selling at $200 would be replaceable at frequent intervals, might be scrapped without much consideration of resale price, and might never create a used car problem.

Can Cars be Sold by Mail? ★

THE sale of cars through a mail-order house is a most interesting proposal. We have become so accustomed to the automobile manufacturer controlling distribution through recognized and exclusive agents that a new method seems almost unbelievable. Department stores never adopted the automobile to any extent, though John Wanamaker once had the Ford agency in New York and department stores go quite extensively into selling motor boats.

But national advertising and local agents have been the means of distribution of the automobile.

Sometime ago the head of a great advertising agency was asked this question:

"Would it be possible to sell a new automobile without national advertising say through a chain of department stores or a mail-order house? Could a manufacturer with a design for a good low-priced car with some novel points sell it in New York through Macy, in Chicago through Marshall Field, in Detroit through Hudson, etc?"

The advertising agent thought a moment and said:

"I doubt if it could now. We made some inquiries at one time and came to the conclusion that a new car couldn't be successfully put on the market with a less expenditure for advertising than $800,000 a year."

An Idea Worth $12 a Line ★

WHEN the New York *Times* put on the front page of a Sunday issue the story of the new car selling at $200 with a 60-inch wheelbase more than one reader said:

"Whew, that is certainly about the finest free ad that ever a new business got!"

And if we measure it that way it was, for front-page space in the Sunday *Times*, the little of it that can be bought, brings $12 a line. But the *Times*, being a sensible newspaper, kept its eyes on its primary customers, the readers, and decided that few things would be more interesting than a revolutionary idea in a tremendously important industry.

Not Light But Cheerful Reading ★

THE Department of Commerce has just issued its year book covering industry and trade for 1928 and while perhaps it should not be recommended for light summer reading it certainly could be described as cheerful, for it presents a picture of almost uninterrupted growth in American business. Manufacturing output was

three per cent above the peak of 1926; railroad tonnage figures showed a gain; export trade was up and so on.

Let us for a minute look at the industries in which there was a decline and ask "why." Here are the five conspicuous instances of decreased percentages:

Beef (cattle slaughtered)	−11
Cotton goods (mill consumption of cotton)	−5
Wool goods (machinery activity)	−2
Bituminous coal	−5
Anthracite	−4

As to beef what's the reason? Higher prices, plus perhaps a little tendency to eat less rather than more meat. The decline in anthracite most of us would be inclined to lay to the increased use of oil as a domestic fuel. Why is bituminous down? It is because industry is using coal more effectively whether it be coal in a factory boiler or coal in a locomotive or coal turned into electricity. How explain the drop in textiles? In cotton, rayon and other new fabrics may account for part but it should be remembered that while 1928 was lower than 1927, that year was in turn higher than 1926. As for wool, perhaps we are wearing a little lighter clothing, depending more on heat from outside.

More or less guesses these, and perhaps the reader has better reasons.

By Way of Comparison ★

A STUDY of corporation profits published by the National City Bank in its August bulletin showed some interesting contrasts and comparisons with the Department of Commerce figures referred to above. The Bank took the reports of 259 companies in various lines of manufacturing and trade and compared these reports for the first six months of 1928 and 1929. Only one line, leather and shoes, showed a loss, in that case 40.1 per cent, while textiles showed the greatest gain. Here is a list of the outstanding gains:

Net Profits—000's omitted

No.	Industry	Six Months 1928	Six Months 1929	Per Cent Change
4	Amusement	$ 5,294	$ 7,930	+ 49.8
22	Auto Accessories	21,919	29,528	+ 34.8
2	Aviation	1,009	1,677	+ 65.2
8	Building Materials	6,701	10,191	+ 52.0
7	Copper	4,101	6,906	+ 68.4
23	Iron and Steel	85,084	172,809	+103.0
13	Machinery	11,925	17,723	+ 48.5
3	Paint and Varnish	1,741	2,808	+ 61.2
21	Petroleum	32,156	52,168	+ 62.2
3	Railway Equipment	5,279	8,173	+ 54.8
6	Textiles	1,616	3,726	+131.0

A Trend in Today's Business ★

TALKING of mergers—and who isn't?—the current news reports leave a feeling that more of the new combinations are of companies making or selling similar things than of companies which have been strictly competitive. A drug house takes the 3-in-1 oil, the railroads are buying into the Greyhound bus systems and so on. A positive instance is the announcement of one of the large gasoline refining and distributing companies which is to go into the food business at its various filling stations, a not unnatural move, but if it starts a thousand roadside restaurants how long before it begins to bake its own bread and cure its own meat?

More than one shrewd observer of current happenings in industry has suggested that one of the impressive changes now going on in business is the tendency to spread out, not to form a monopoly of a single product, but to bring into the management of a single group of men a group of kindred industries.

Business seems to grow by accretion, either through this merger of kindred companies or by adding complementary lines. Department stores furnish many instances. Best's in New York was once a shop dealing only in children's clothing; Knox once sold only men's hats, now it deals in certain types of women's clothing.

It is maybe well to tell the cobbler to stick to his last but he won't follow the advice if he can make and sell stockings more profitably.

Making Taxes Pay Transportation ★

WRITING in NATION'S BUSINESS last March the Managing Director of the American Electric Railway Association said:

> It is not impossible, however, that the very subsidy system now being used, without the general knowledge of New York's taxpayers, some day will be in vogue in many communities with the full knowledge of taxpayers. Providing service at a low fare which does not meet the cost of the service and paying the deficit out of taxes is being advocated by transportation leaders for communities where receipts adequate to meet operating costs cannot be obtained.

An interesting echo of this viewpoint but with a somewhat different reason in its support is found in a recent talk by Samuel Untermyer, special counsel for the New York City Transit Commission. Said he:

> I insist that if it is going to cost, say eight cents per passenger for interest, sinking fund and operation costs of future subways, of which three cents should cover the cost of operation, the difference of five cents should be borne—40 per cent or two cents per passenger by the passenger, making five cents per fare, and the balance equally divided between the property benefited and the city at large.
>
> Why should not the taxpayer in the city at large also contribute to the cost of the service? No matter where his property is located, its value is enhanced by improved transportation.

Can You Beat John D.'s Record? ★

NO MAN lives into his 90's without breaking some records. He must at least be the oldest man in his neighborhood if not in his city and his state. A nice old lady of 87 told us once with interest and surprise that she had just had a letter telling her that she was now the oldest customer on the books of the leading department store of her city—which is just as good a record to have as one for marathon dancing.

So John D. Rockefeller, Sr., seems to have made a record, at least it is a record so far as we can learn. The *Clevelander* tells us that he's been a member of

the Cleveland Chamber of Commerce since 1870, a matter of 59 years.

This as we have suggested may not be a record but NATION'S BUSINESS will give a bright new dime to the endowment or building fund of any chamber which will produce a member with a record of more than 59 years in the organization.

Unfair Competition?

★

HERE'S a practical problem in business ethics:

A large manufacturer and naturally a large shipper of steel and iron products has close business relations with a smaller manufacturer of material used in building. For ease of presenting the case, let us call the large manufacturer A and the small one B.

A railroad over which A ships quantities of goods is about to put up new buildings and A suggests to the railroad that he would greatly appreciate the use of B's material. There is no direct threat that a failure to do so would affect A's shipment of goods over the railroad, but the suggestion is strong enough to make the railroad think very favorably, to say the least, of B's products.

B has a competitor, C, making the same sort of building material. C would like to sell to the railroad but finds his efforts blocked. Let us assume that B's prices are not extortionate, that he is not taking unfair advantage of his favored position and ask ourselves these questions.

Is there anything legally or morally wrong in A's using his influence as a shipper to persuade the railroad to buy of B?

The situation is a hardship to C, who finds his way barred to a possible customer. The railroad by obliging its customer B, may deprive itself of the advantages of open competition.

Yet in one form or another this sort of "controlled buying" goes on in every industry. How does it fit with this, the eleventh clause in the Chamber's Principles of Business Conduct:

> Unfair competition embracing all acts characterized by bad faith, deception, fraud or oppression, including commercial bribery, is wasteful, despicable and a public wrong. Business will rely for its success on the excellence of its own service.

Finding Men for the Jobs

★

JUST after Henry Ford in an interview had said what the country needed was one great power trust covering the entire country, a distinguished leader in the public utility field made this comment:

"A most interesting idea but one question leaps to my mind. Where is the man big enough to manage such an enterprise? The companies with which I am connected cover but a little piece of the United States, yet I sometimes think the job of managing them is bigger than I am."

It sometimes seems as if jobs grew faster than men. If by consolidation, enforced or voluntary, we put the railroads of this country in four or seven or nine systems, where shall the country find the four or seven or nine men capable of taking on the stupendous task of managing these systems?

The newspapers told how long and how arduous was President Hoover's search for men to form the Federal Farm Board. But think how great was the task which he offered to them! Ask a man whose hands are filled with the job of marketing the product of a single factory how he would like the job of marketing the products of the six million factories that make up our wheat, corn, cotton, tobacco, cattle, hogs and the hundred other products of these six million farms.

And there is another danger in the personnel of such an organization as the Farm Board, the danger of sinking into a mere political job, that it may cease to attract first-rate men, and places upon it be handed out as political pap.

Difficult indeed is the task of business to get men to fill the tasks that lie at hand but how much more difficult is the task of government!

Business can at least experiment with men, can sometimes reduce the job to fit the man.

John Bull Buys Less Beef

★

WHAT BRITISH butchers are going to do about the decline of meat eating in Britain is not yet apparent. Less meat is being imported into Britain, and the number of cattle decreased from 11,800,000 in 1913 to 8,130,000 at the beginning of the year.

For reasons, some observers give the modern vogue of slenderness. Others believe that the week-end motoring habit has led Englishmen to spend more money on gasoline and less on Sunday roasts.

But the fact that imports of fruit have almost doubled in the last two years is also directly significant. It may be that the well-fed Englishman is reaching for a salad instead of a steak.

The Old Age Problem

★

WHAT IS the place in industry of the man over 40?

Secretary of Labor Davis has asked the question. President Green of the American Federation of Labor has raised it. Leaders of industry are not unmindful of its importance.

Henry Ford, as interpreted by Samuel Crowther, has this to say of it in the *Ladies Home Journal:*

> We have employed hundreds of thousands of people in the past 25 years and have had the opportunity to learn the comparative values of youth and age in a cold dollars-and-cents way. As a result, we have come to think not at all of age but only of experience and the capacity to learn.

A pleasant and likable philosophy but one that fails to find support in the experience of employers in general. It may be true that many men are industrially young and are hirable at 40 or 50 or even 60, but it is equally and undeniably true that many, perhaps most, of our industrial corporations, do not care to employ men of 40 or even younger.

As one man skilled in employment work put it:

> I might almost say that not only do we refuse to hire men of

40 but that we don't hire men of 30. The men of our company come to us in their twenties and stay with us. Our greatest task is what to do with them when they reach 40 or at whatever age they begin to grow less efficient. We are unwilling to let them go but it is not easy to keep them on when others younger and more alert are crowding on their heels.

That business is conscious of the situation is, after all, one of the hopeful signs. Less and less is the employer willing to take his stand on a platform that labor is merely a raw material that helps to make a finished product. Old-age pensions, re-location of aging workers, the lightening of hours of labor, these are things that may help to solve the vexed question of "the man over 40."

A Tragedy of Business

★

FORTY YEARS ago two hard-working young men began to build a wholesale business, and did well. It could not be a great business, that was certain from the size of the community, but it has always been profitable. Each of the partners became wealthy. Perhaps they were a bit autocratic. Employes were never allowed responsibility. The partners loved their work, and engaged in a friendly competition to outdo each other in the amount of work done.

Several years ago the senior partner died. Then it was decided to incorporate. The senior's son, a young man just taken into the business, was allotted half the stock. The junior partner was persuaded to sell part of his half interest to a few of the faithful employes. He was made president at a fair salary.

Profits were even better. These newly made executives reached out eagerly for more power, and assumed that the credit for the firm's continued success belonged to them.

The other day they requested the president to resign, as they felt that he no longer earned his salary. The balance of power is now against him, and he will have to leave the business he helped to build. There is much that the young men do not see. Perhaps they can find new ways to arrange credit, which he has always taken care of capably.

A point which they will likely never see is that he is mainly responsible for building them up to the point where they have the power to fire him. To him it is a bitter paradox. What's the moral? There are too many and any reader can find his own.

America's Money Going Abroad

★

THE STABILITY of the earning power of our long-term foreign investments is becoming increasingly important to the prosperity of the United States. In its bulletin on "The Balance of International Payments of the United States in 1928," the Department of Commerce shows that last year the net earnings of all our private foreign investments amounted to $817,000,000—an increase of $74,000,000 over 1927.

The growth of these foreign investments is now at an annual rate of about a billion and a half dollars, the total on the first of this year amounting to from 12½ to 14½ billion dollars, "war debts" excluded. About $8,000,000,000 of this huge sum is invested in foreign bonds and the overwhelming majority of these bonds represent the obligations of foreign governments provinces, municipalities, and government-endorsed industries.

The flow of American capital into foreign investments is not likely to lessen greatly. So long as it continues there will be interest in the question whether the private American investor is adequately protected against possible default or repudiation of some of the more speculative flotations.

There is then reason for the interest in this country in the work of the British Corporation of Foreign Bondholders, which scrutinizes the public credit of borrowing agencies and intervenes where necessary to prevent loss to the individual investor.

Since the British Corporation's foundation in 1868, it has been able—at an operating cost of $60,000 a year—to secure the settlement of no less than $5,000,000,000 of debts in the interest of the British investor. It has, moreover, not only protected investors and bankers against unfair risks but has powerfully supported the cause of public financial integrity throughout the world.

Advertising To One's Sons

★

THE purpose of advertising is to sell goods. It is difficult to quarrel with that assertion. Yet, a manufacturer, approached not long ago by an advertising agency, declared that he did not want to sell more goods to more people but rather to sell the products he now made to a very limited audience.

His product is widely and profitably sold at present chiefly at low prices through chain stores. Here, paraphrased, is the story he told the advertising agency:

I have no doubt that I could increase the sale of my goods through advertising, but why should I? I am now selling all that my present production facilities will turn out. To increase my sales would necessitate increasing my plant facilities; to take on new burdens which I hesitate to take on at my time of life when I have already an income more than ample to meet my needs and when I have, so far as I can measure, reasonably provided for the future.

No, my problem is a different one. I have two sons. They are, I think, able young men but they have no desire to carry on my business. They feel, I think, that there is no money urge upon them to make them carry on the business. They would rather do something else; venture upon new fields which seem to them better worth while. Mine is not a distinctive product, nor has it ever had a distinctive name, yet the things I make are necessary to human comfort and are widely used.

Now I would gladly advertise and advertise widely and liberally if I thought that that advertising would make my sons as proud as I am of the work I am doing and eager to carry it on.

It is not hard to put oneself in the place of either the father or the son. To build a going, successful money-making business, to keep improving quality and lowering price, to fill the wants of the world, is a worth-while achievement, a thing in which one might properly take pride, but to pass on to a new generation that pride, pride in a thing already done, is no easy matter. Perhaps advertising, advertising that would share that pride with the public, might help.



Machines have put wheat growing on a mass-production basis in the West and Southwest
(Photographs showing what machines are doing in other industries appear on pages 16 and 17)

★

Agriculture's Industrial Revolution

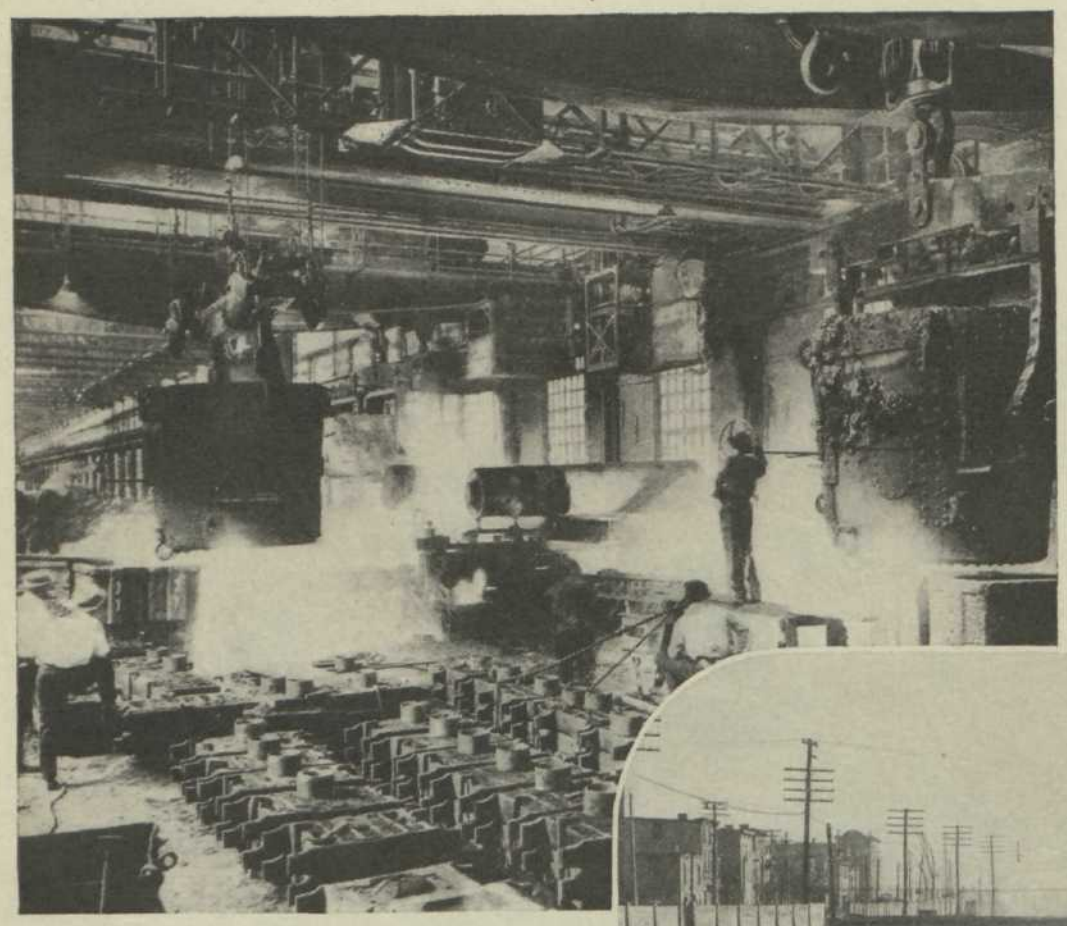
By WILLIAM HARPER DEAN

Manager, Agricultural Service Department, United States Chamber of Commerce

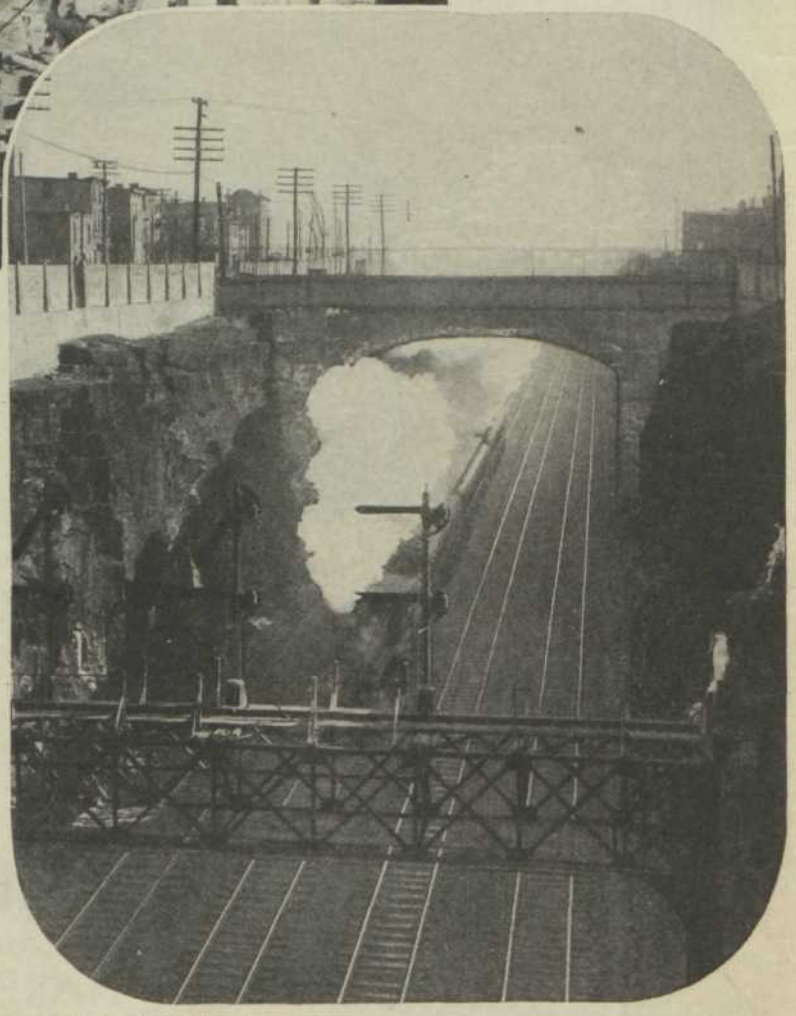
A GREAT deal of publicity has been given to the large stocks of American wheat on hand from last year's crops and the problems arising from additions to those stocks by the 1929 harvest. That publicity has revolved largely around such questions as market demand and prices. These are of first magnitude, unquestionably.

At the same time, the wheat situation includes factors of far-reaching significance which have not shared the limelight with the factors of demand and price. This is true in almost every instance of so-called overproduction in agriculture. Hidden in these manifestations are truths which have a significance beyond the immediate concern of profitable disposal of production in hand. Where did the wheat come from that piled up in our terminals this year—from small family-sized farms where

(Continued on page 18)



The public demands steel in quantities that human muscles could not produce but overhead cranes know no fatigue as they trundle their loads through the casting sheds



Where once ox teams toiled with tiny loads the machines of modern transportation race to distant markets while mechanical sentries assure their safety

EWING GALLOWAY, N. Y.

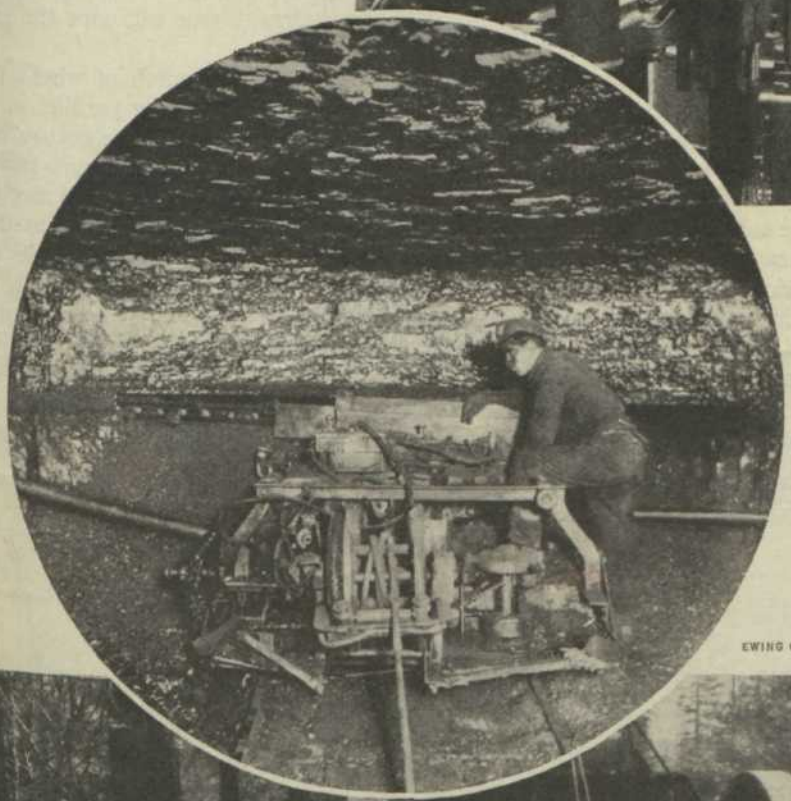


From excavation to penthouse the machine is the constant ally of the skyscraper builder

How the Magic of the Machine Is Freeing Man from Toil



The automobile lightened the burdens and increased the pleasures of mankind but behind the auto is the machine that made mass production and low-price transportation possible



More machines demand more power. More power means more fuel. So the electric coal cutter replaced the pick to increase efficiency and speed in mining and lighten the work of men

EWING GALLOWAY, N. Y.



The tractor and the giant wheeler have combined to save the sinews of men and beasts in the logging camps on the West Coast

production costs are relatively high, or from larger producing units with these costs materially cut? Going back a few years in acreage figures, it is quite apparent that the smaller farm units rapidly have been reducing their acreage of wheat. Wheat production costs in Ohio, Indiana, Illinois and Iowa naturally are higher than those in the Dakotas and Montana.

But we have been assuming that since 1923, when the Great Plains wheat states were so seriously affected by wheat prices, they have turned from wheat to dairying and general diversified production. So one would expect to find in the records a decided falling off in wheat acreages in the Dakotas and Montana, for example. But do you? You do and you don't.

Taking those states as a whole, you will find that wheat acreage in North Dakota is increasing, that the acreage in South Dakota, though varying, was greater in 1928 than in 1923 to 1926 inclusive, that there has been a marked rise in the Montana wheat acreage in recent years. It is plain that Minnesota as a whole is lessening her dependence upon this crop. So much for four of our great spring wheat states.

In the hard winter wheat states, Nebraska, Kansas, Oklahoma and Texas, the wheat acreage shows an upward tendency. Of course there has been diversification in all these states, but you likely would find that diversification, where it is gaining headway, is in their eastern sections and that the western regions are, if anything, increasing their dependence on this cash crop. A recent survey of an area in southwestern Kansas, for example, shows this to be strikingly true.

Mass production in wheat

THE increase in wheat acreage in the Great Plains and southwestern states is due to the fact that it is possible to produce this crop at lower cost on the larger units. In these vast areas of the West and Southwest, wheat is grown on a mass-production basis made possible by large units on which the tractor and the combine are at their best. Only plain reasoning is needed to reach the conclusion that a "distress" price for wheat in one section does not necessarily spell distress in another unless that price is so exceptionally low as to leave no margin to the grower who has raised the commodity at the lowest cost made possible by mass production.

The ups and downs of cotton's fortunes are perhaps even better known to the general reader than are those of wheat. We have had years of sky-high cotton when even the grower of a third of a bale to the acre was jubilant over the result of his season's work. We have had years when deepest gloom overcast the entire old cotton belt. Yet some sections in this country can stand a low cotton market when other sections, depending entirely upon that crop, cannot survive except by grace of credit which is based not so much upon collateral as upon the inherent human hope that next year will wipe the slate of all scores.

The westward march of wheat production finds a striking parallel in the westward extension of the cotton belt. The more we get into level lands farmed in large units, the more we find mechanical production coming into its own. Ordinarily that means lower production costs.

The eastern section of our old cotton belt—North Carolina, South Carolina, Georgia and Florida—in 1918 harvested

(*Continued on page 78*)



The more we get into level lands farmed in large units, the more we find mechanical production coming into its own. Ordinarily that means lower production costs

The Growing Pains of Aviation

By W. J. AUSTIN

President, The Austin Company

ILLUSTRATIONS BY CLAYTON KNIGHT



AVIATION is experiencing its growing pains, just as have other young industries. But its leaders are quick to see and correct mistakes —and therein is its strength

AVIATION will never be able to point the way to bigger profits in the air until it makes a better showing on the ground. For it is more and more apparent that passenger traffic never can be developed until adequate passenger terminals are available to the public. It is at the airport that public confidence is won or lost.

The traveling public is accustomed to the atmosphere of safety, comfort, and split-second precision that prevails at a first-class railroad terminal. In contrast, the ordinary airport makes no provision whatever for the public. The passenger rushing across the field to board a plane is in danger from the propellers of taxi-ing planes. In wet weather he is usually obliged to wade through mud.

It is true that a railroad locomotive is just as dangerous as an airplane propeller, but the railroad counteracts this danger by safety gates and platforms.

What does it matter that transport planes are being built ever safer and more luxurious if conditions on the ground discourage passengers from using them? Yet I know of no air passenger station in this country where the combined comfort and safety of a railroad terminal may be found. A few air passenger depots provide passengers with railroad station comfort, but even these have no really adequate system of handling traffic to and from the airplanes.

The operators' problem

OPERATORS of the transport lines do not believe that their present earnings justify the large expenditures required for adequate passenger terminals. But the fact is that they cannot substantially increase passenger revenue until such terminals are provided. My suggestion is that some of the millions being poured into aviation by the investing public be used for construction of passenger terminals. This, of course, means a long-pull investment, but so is every other aviation investment.

Another factor delaying the construction of passenger terminals is the fear

that future development of airplanes will make the stations obsolete before they have had time to pay out on the investment. Weight is given to this fear by the scrapping of a $600,000 investment in Croyden Field near London, England, and the investment of $1,000,000 in new money for a more modern terminal there.

However, the helicopters, wing slots, catapults, arresting gear and other devices designed to permit planes to land and take off in small spaces are decidedly in the experimental stage, and nearly all flying equipment will need ample room for many years to come. Moreover, designs are available for practical and scientific terminals, which will serve present requirements.



Passengers often have to wade through mud

Despite what is still being said about the need for education, it is my opinion that the obstacles in the path of air passenger traffic are physical, rather than psychological or educational. Unquestionably psychology is still a factor. So delicate is the balance between the misgivings of a passenger about to take his first airplane ride and his curiosity as to the sensations of flight, that the slightest suggestion often will give his fears the ascendency and cause him to renounce the trip.

Transport officials and airport managers have found that even the sight of repairs being made to planes, even those in which they are not going to ride, is enough to make some prospective passengers change their minds. Student flying and the evolutions of military planes within sight of the airport also shake the confidence of the prospective passengers.

Increasing the safety factor

SAFETY in the air is steadily becoming greater through the improved designs of ships. The hourly weather reports now broadcast to planes on certain routes by the Department of Commerce is another important measure making for safety in flight, and its usefulness will be broadened of course as the service is expanded.

Exclusive radio frequencies to permit communication by means of radio telephones between planes and ground stations are also contemplated, an improvement that will doubtless prove a stimulant to the confidence of the traveling public and a great convenience as well.

For the present and from a national point of view, it may be said definitely that the passenger phase of the business has not reached the profitable stage. A few of the lines on the West Coast have brought up the percentage of revenue from this source, but generally speaking there is no money in it at present. To get a profit requires operation on regular schedules, independent of the mail runs, and there is not now sufficient volume of traffic to make it pay for itself. Most authorities believe the volume would follow lower rates but new equipment of greater capacity is required to reduce existing operating costs.

It is evident that all the profitable business done by the transport lines now comes from the Government. Only lines with substantial air-mail contracts are showing profits, and according to the operators these are the exceptions favored by high volume and good flying conditions. They do not represent an average for the industry as a whole by any means. Nevertheless the air-mail contract today is playing much the same part in the development of the airplane as a common carrier as did land grants in the middle of the last century in the great task of getting the railroads started.

Advancing American aviation

IT IS, I think, a matter of gratification that the Government, through the Post Office Department, has played such an intelligent part in fostering this new mode of transportation.

Since the Government grants no direct subsidies to transport lines, as do the governments of most of the European countries—and since the method of direct subsidy is contrary to the American belief that any commercial



Hourly weather reports, now broadcast to planes, make for safer flying

enterprise should be self-supporting—air mail is the only means by which this nation can keep abreast of the world in the advance of aviation until we bring the passenger and express divisions to greater volume.

The large extent to which the public is aware of the ultimate potentiality of the new industry is pretty accurately gauged by investment statistics. Listed aeronautical stocks total more than a billion dollars, and in 1928 about half a billion was invested in aviation stock issues of all descriptions, exclusive of sums that were advanced by private banking interests.

Yet the estimated gross income of the industry in 1928 was only $50,000,000 and some authorities say that this figure may be reached only by including returns to all the collateral manufacturing interests.



Radio telephoning between plane and ground will doubtless raise the traveling public's confidence

The great need of the air-transport business is volume, both of mail and passenger traffic. This was made clear in 1928 when air-mail rates were reduced, with the result that the poundage increased and profits expanded correspondingly.

The reduction of air-mail rates brought a considerable increase in business, but there is some difference of opinion as to how much. The postage rate was reduced from ten cents to five cents for the first ounce, the rate remaining ten cents for each additional ounce. As a result of the reduction, the total air mail transported in the United States in 1928 is given as 4,061,481 pounds as against 1,270,299 in 1927.

The estimated poundage for the first quarter of this year is 1,300,000, at the annual rate of 5,200,000 pounds. But experienced operators say that some of the mail has been counted twice in these figures, and that actually the new rate only a little more than doubled the total handled.

As an example of the effect of the reduced postage rates on earnings of transport lines, the income statement of the National Air Transport, Inc., one of the largest lines in the country, is of interest.

It should be noted, however, that this picture of present profits does not take into account the replacement of past losses, and also that several months do not indicate what a year will show because the business of aerial transportation is highly affected by the season. The statement follows:

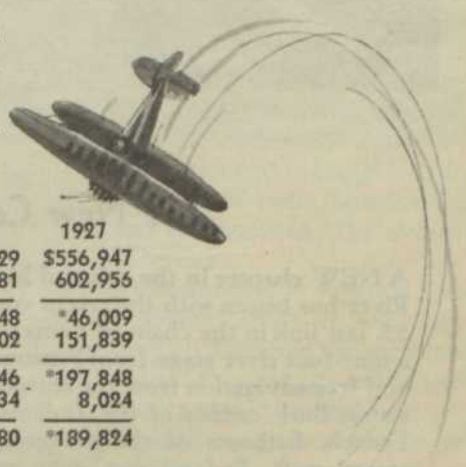
	1928	1927
Operating revenue	$1,652,629	$556,947
Costs and depreciation	1,108,281	602,956
Operating profit	544,348	*46,009
Traffic, etc.	271,702	151,839
Balance	272,646	*197,848
Other income and adjustments	1,534	8,024
Profit	274,180	*189,824

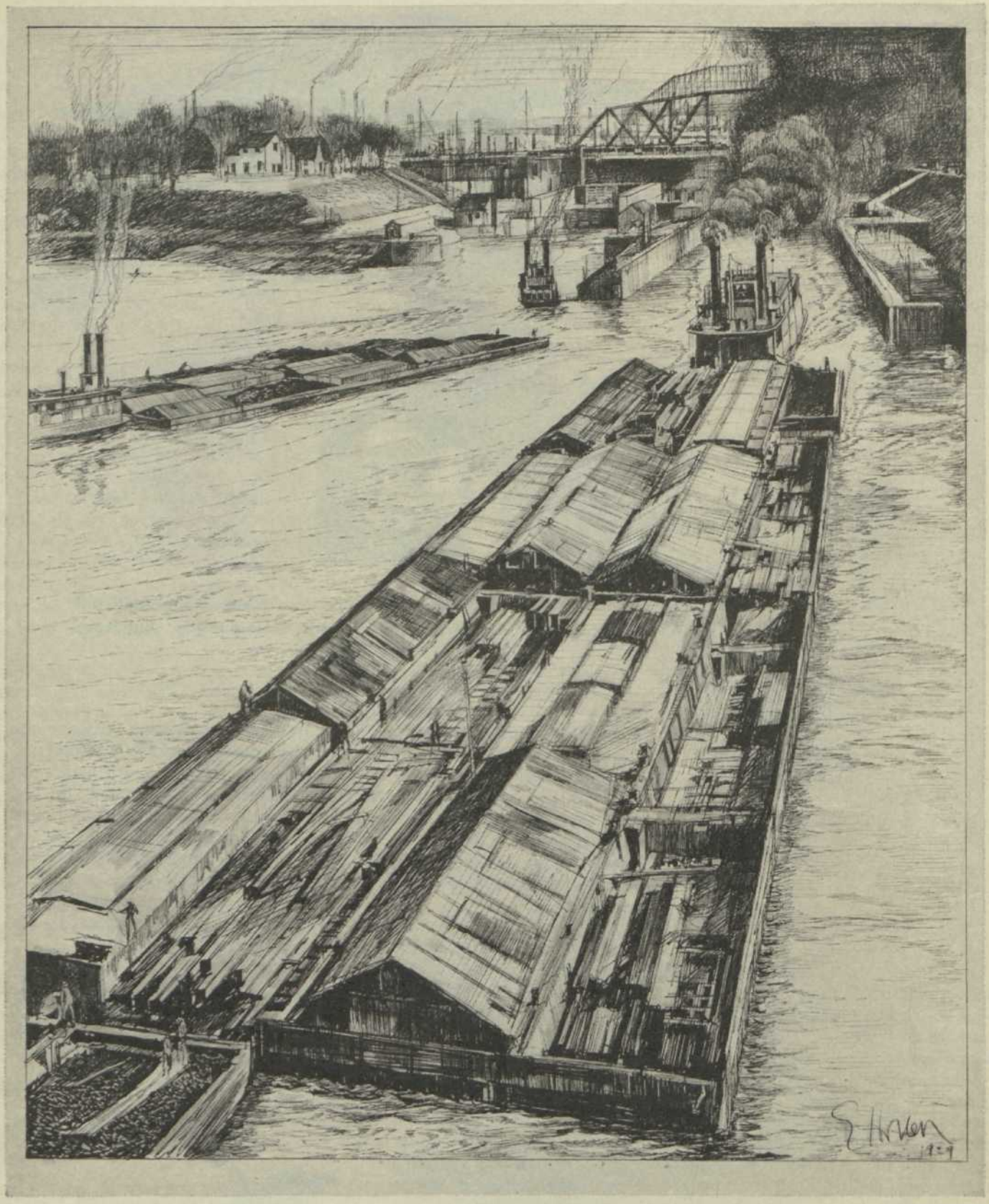
*Loss

In the first month that the lower rate applied, the National Air Transport carried almost twice as much mail as in July under the old rate, and for the last five months of the year averaged more than double the July figure. The company earned a profit of $356,000 during the last five months of the year, which was at the annual rate of about $1.30 a share on the 650,000 shares of no par value stock outstanding.

It should be noted also that the increased volume of air mail is being accompanied by a sharp decline from the original $3 a pound contracts to prices ranging from sixty cents to $1.40 a

(*Continued on page 75*)





The New Conquest of the Ohio—By Earl Horter

A NEW chapter in the colorful history of the Ohio River has begun with the recent completion of Dam 53, last link in the chain of dams which will provide a nine-foot river stage from Pittsburgh to Cairo, Ill., and free navigation from the seasonal menace of low water. Bark canoes of the Indians, bateaux of the French, flatboats of the pioneers, the first crude steam craft, Federal gunboats, and palatial side-wheelers in succession have plied the Ohio's broad bosom. Now in turn come the monster tows of modern commerce such as the steamer *Monongahela* here pushes from the lock at Louisville—14,000 tons of steel bound down from Pittsburgh.

The project, completed after 50 years and at a cost of nearly $120,000,000, forms a part of the world's greatest inland waterways system



HARRIS & EWING

Merlin Hall Aylesworth

The Listener Rules Broadcasting

By MERLIN HALL AYLESWORTH

President, The National Broadcasting Company

THE convenience of radio in education and entertainment is apparent. Not so obvious is the time and thought necessary to provide programs that will best serve the public. To that consideration Mr. Aylesworth invites attention in this article, the second of a series on radio's economic and scientific aspects

FOURTEEN men recently sat about a table in a Fifth Avenue office. They were all experienced radio workers, the executive staff of the world's largest radio organization. The chief executive propounded two questions and asked each person to present written answers:

"What is radio broadcasting?"

"What is its primary function?"

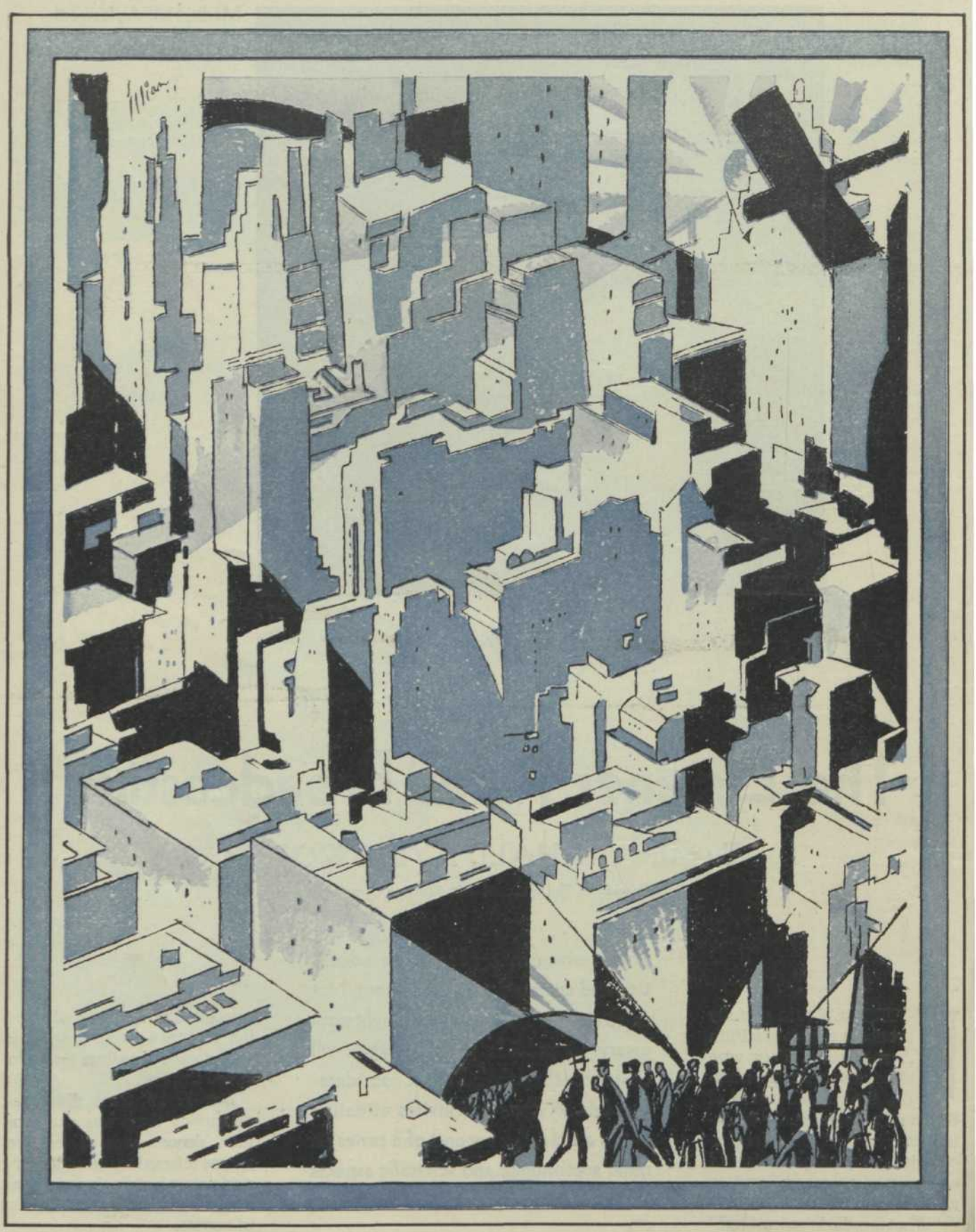
Fourteen widely different answers were submitted. Each executive had responded from his own departmental point of view, and naturally, each saw radio largely as he himself participated in it.

Engineers saw radio broadcasting as a mechanical matter; to the musical director radio meant music. The corporation counsel defined it in legal terms; the program manager considered it in terms of announcements and artists and studios. To the continuity director, radio appeared as a problem in literary psychology. The commercial departments responded in terms of advertising clients. Others thought in measures of wire lines and associated stations.

But in all these diversified definitions there was one common denominator. Every response referred to the underlying principle of radio broadcasting and its functions—the element of service.

Radio broadcasting in America is essentially and exclusively a service institution. As such it entered the social and economic life of the nation, and as such it appears certain to remain. It is a stabilized industry with definitely established potentialities, as well as cer-

(*Continued on page 122*)



Two thousand years ago a well-traveled Greek said, "A great city is a great desert." Today the boosters of a thousand cities tell us that towering buildings and crowded streets indicate progress

Towns Have What Cities Promise

By THOMAS C. POWELL

President, Chicago and Eastern Illinois Railway Company

DECORATIONS BY GEORGE ILLIAN



There is no reason why a community can't be a happy place to live



TREMENDOUS size, whether in a city or an industry, does not necessarily mean efficiency; great size in a city means a struggle for health and a strenuous existence even to carry out the simple process of living.

A moderate-sized community has every opportunity for comfort that any great city can offer; a moderate-sized community has a greater opportunity than any other for health, personal association and real prosperity.

This is not an argument in favor of a "back to the farm" movement; it is an analysis of the advantages of a small community as a business and social center as compared with the large centers of population. It is written from the standpoint of experience and observation.

The 1930 census will probably show that we have in the continental United States a population of at least 120 million. To arrive at the number living neither on the farms nor in the great centers we should deduct the probable farm quota of about 28 million and another 28 million who are congregated in cities of 300,000 population and more.

This leaves about 64 million men, women and children, more than one-half our total population, living in communities ranging from 2,500 to 300,000 people where conditions are the most desirable we have been able to achieve in this country.

Just what is "a city"?

IT IS NOT easy to define the various kinds of communities in America. Off hand, it might be said that the incorporated village is the least populous kind of corporate municipality and that the city is the largest and most populous kind of municipality. But, although a municipality is defined as "an incorporated borough, town or city," there are no general rules in the United States exactly defining any one of them.

Oak Park, Ill., with a population of about 60,000, claims to be the largest village, but Vergennes, Vt., has for years boasted that it is the smallest city. Its population is less than 2,000. Brookline, Mass., with 40,000 people still remains a "town" and declines to be called a city.

In some states, including Minnesota, New Jersey, Connecticut and Pennsylvania, a "borough" corresponds to what we know as incorporated towns or villages in other states.

It would be safe to say, therefore, that about 64,000,000 people in the United States living neither on the farms nor in the great cities are in "villages" or "towns" or "boroughs" or "cities."

There is no doubt that the larger cities are growing rapidly, but in what are known as "metropolitan areas" people are moving from the congested interior sections to the outlying suburbs.

Many of these moving from the smaller communities to the larger do so under the impression that the opportunity for comfort and freedom and profit is greater than in the place they have left. Generally speaking, they are disappointed, nor is this disappointment a realiza-

tion of the Twentieth Century only. Nearly 2,000 years ago a well-traveled Greek said, "A great city is a great desert."

Population, therefore, is not the only thing to be considered, but nevertheless the active secretaries of a thousand places would make us believe that happiness, prosperity and comfort are founded on population and that crowded and noisy streets indicate real progress.

More accurate critics, such as Hilaire Belloc and Dean Inge, complain respectively of "The torture of a great city" and, in connection with better government, of "the impotence of size."

We're just like the savages

SOMEONE has written, "The savage, inconsistent in his moral life, is equally inconsistent, equally unable to 'keep straight' in his house building and his road building." In some respects the dwellers in our great cities, or at least those responsible for the management of those cities, have not advanced very far beyond the foresight of the savage.

Washington, once called "The City of Magnificent Distances" and now progressing rapidly toward being the most beautiful city in America, probably stands almost alone so far as the original plan is concerned as a community designed for comfort, good order, and convenience of access. But from the very beginning these wise plans were destroyed by high land prices, poor architecture and the resulting crowded rows of unattractive houses, so that as Washington has grown in size the city proper has become less desirable for residence, and men are seeking comfort and quiet on the outside.

The appearance of the heart of Washington is being improved and beautified not because of a more attractive residential development but through the construction and ornamentation of the great buildings which are the workshops of government and business.

Many a village in Europe and America was first grouped around a water supply. The town pump was the central point and the gathering place. As the distribution of water was extended, the community expanded, but among the older civilizations only the Romans provided ample water for public use from the beginning, and so it can be said that "their towns had unity" and that "the various parts were in some sense harmonized, none being neglected and none grievously overindulged, and that the whole was treated as one organism." Can the same be said of any of the great cities in the United States?



Those people are fortunate who live in or adjacent to communities having populations ranging from 50,000 to 100,000. There is no longer any oppressive isolation. These places are just as much in touch with each other and with the world as the great cities can hope to be. The many comforts of American life are equally available no matter what the size of the community.

The railroads, the motor vehicles, the telephone, telegraph and radio, the airplane, now utilized for passenger, mail and express service, all contribute to easy communication, social contact and to education. It will not be long before many will enjoy that latest wonder, television.

One does not need to live in a city of even 10,000 people to get the benefit of the motion pictures which bring not only to our door but within our very household a clear visual demonstration not only of all the sections of the world but all the public events, sports, amusements and the everyday topics of conversation.

Happiness in small towns

THE smaller communities may enjoy all these advantages as the result of intensive study of men and women who by analysis, experimentation and the application of scientific knowledge have added each year to the pleasant possibilities of life. Much credit must also be given those who, through intelligent foresight and hard work, have applied these inventions and discoveries to the betterment of our daily surroundings.

To enjoy the fruits of their labor, men and women require plenty of light, abundant water, uncontaminated air, quick communication, and, through all these the opportunity of social contact and higher education.

There is no valid excuse for a community to be anything but a happy place to live, but as cities become larger happiness disappears and we have in its place excitement, turmoil, sickness, disorder, extravagance and a continual change of location, all of which contribute to the general state of mind which is called "a struggle for existence."

Large cities can be detected from the air by the pall of smoke resulting from close concentration of residences and manufacturing plants with few open spaces to counteract the effects of industrial congestion. Accurate tests made in one instance have developed that after the sun sets on hot days the temperature of the city under the smoke pall remains higher than that of the surrounding countryside for three or four hours. In other words, the people of the city are not relieved from the heat until nine or ten o'clock.

A survey made to develop the cost of medical care, taking in every state, has shown that the individual outlay among the farm families was $22.62, while in New York the community spent last year $150,000,000 for doctors, nurses, hospitals, clinics, drugs—caring for the sick—at a per capita cost of $25. Some 2,400,000 patients visited the 675 municipal and private clinics.

No wonder it has been necessary to invent and develop the ultra-violet ray transmitting lamp. It has been found that "ultra-violet rays, whether from the sun or from mercury or carbon lamps, prevent and cure rickets, are valuable for general well-being," but 20 minutes of good, clear sunlight is probably just as effective as a much longer use of the expensive apparatus.

Communities should be classified not according to population but according to those things which make them suitable and attractive places to live.

A city under an honest and capable city government, backed by the alert citizens of the community should have:

(a) Pure water.
(b) Complete sewer system.
(c) Well-paved thoroughfares properly maintained.
(d) Good schools, including a technical school.
(e) Efficient police and fire departments.
(f) Fair taxes evenly distributed.
(g) Good public library system supplementing the school system.
(h) Parks and an artistic spirit strong enough to keep them clean and orderly.
(i) A proper building code enforced to protect the appearance of the city and create a low insurance rate.
(j) Good churches.

The small city's advantage

ALL these advantages can be obtained much more effectively in a small city than in a large one, mainly because there can be greater personal contact

(*Continued on page 174*)

What the O'Fallon Decision Means



EWING GALLOWAY

The average wage of railroad workers has increased every year since 1923

By Samuel O. Dunn

Editor, Railway Age

THE ST. LOUIS and O'Fallon railroad, 12 miles long, has become one of the most important in the country because of a Supreme Court decision that the Interstate Commerce Commission's method of fixing its value was improper.

The decision may increase the valuation of all railroads. How will this affect railroad stock and fares?

FEW decisions ever rendered by the United States Supreme Court have raised so many questions as that in the O'Fallon railroad valuation case. What does it mean? How will it affect railroad stocks? How will it affect railroad rates?

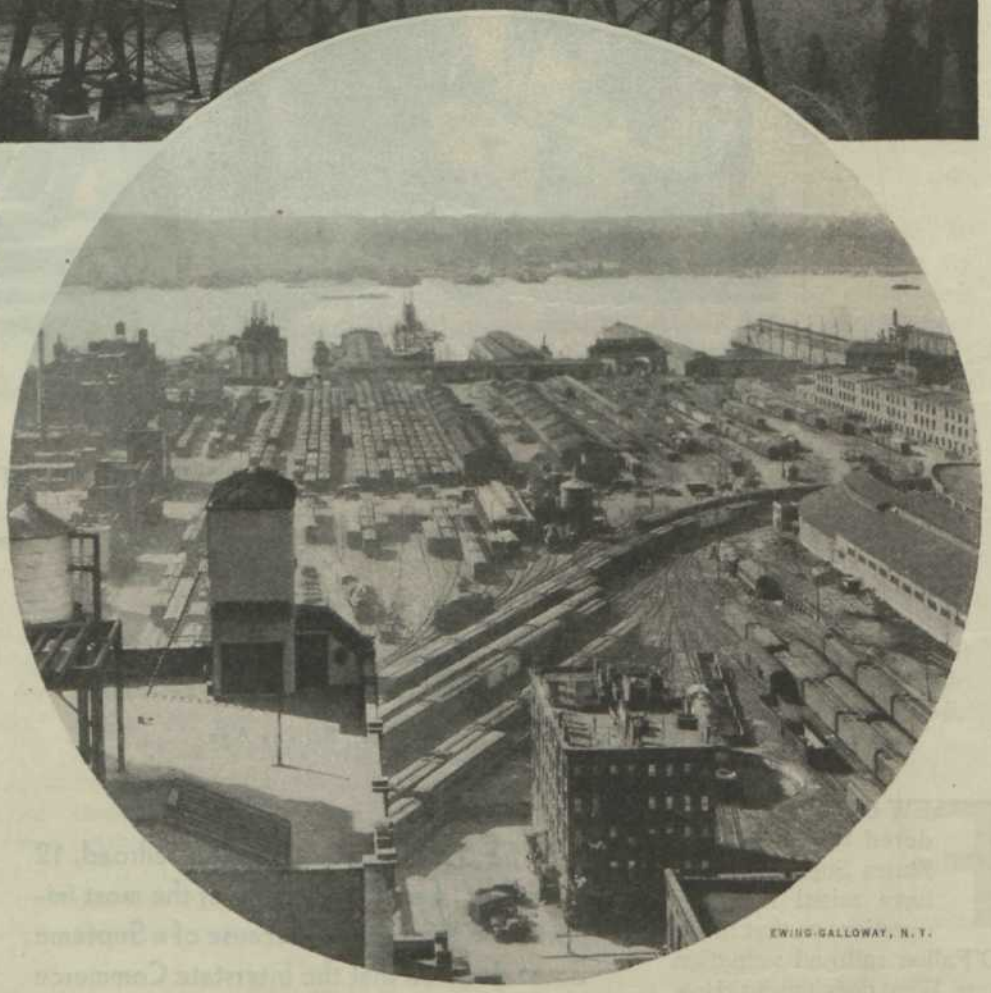
The most widely differing views have been expressed. Some persons have predicted that the decision will almost double the valuation placed on the railroads. One newspaper story said it involved $2,000,000,000 annually in freight rates; President Hoover predicted it would not result in any advance in rates. Immediately after the decision was announced, prices of railway stocks sharply advanced, but they declined almost as quickly and as much.

Railroad valuation is a subject regarding which many persons have found it convenient to change their minds. Radicals of yesterday such as William Jennings Bryan and Senator Robert M. La Follette, Sr., of Wisconsin, both of whom finally reversed their views as to how a valuation should be made, are more responsible than all the conservatives of their time for the Supreme Court having made a decision which the radicals of today, such as Senators Smith Brookhart of Iowa and Burton K. Wheeler of Montana, agree to most roundly denounce.

The law providing for a valuation was passed in 1913. Senator La Follette estimated that it would take three years to make it. The Interstate Commerce



Depreciation of bridges like this and of the trains that cross them figures in fixing the valuation to be set on railroad properties



EWING GALLOWAY, N. Y.

A valuation based on reproduction costs alone, would, theoretically, permit a 12 per cent advance in freight rates alone

Commission thought it would take from five to seven years. The decision in the O'Fallon case was handed down 16 years after these predictions were made, and it probably will be a long time before the final valuations are reached in accordance with this decision.

Cost forecasts fail

SENATOR La Follette estimated that a valuation would cost the Government $2,400,000 and the railways an equal amount. The Interstate Commerce Commission estimated it would cost the Government from $10,000,000 to $15,000,000. It already has cost the Government about $35,000,000 and the railroads about $115,000,000.

As these forecasts and the subsequent developments indicate, railroad valuation has been a hazardous subject about which to prophesy. After all, however, the only persons whom these developments have really astonished and confounded are those who formerly saw in valuation a means of greatly reducing railway rates, and who now, as a result of the O'Fallon decision, see in it a means of greatly increasing them.

Railway executives formerly opposed the making of a valuation upon the ground that it would be impracticable as a basis for rate regulation, but they never feared it much. Likewise, now, while many men in public life, because of the O'Fallon decision, are anticipating a valuation of $40,000,000,000 and a huge increase in rates to pay a return on it, railway executives are speaking conservatively of the probable results.

To understand what the O'Fallon decision means and something of its probable effects it is necessary to know the history of railroad valuation. A young lawyer named William Jennings Bryan,

who ran for president on the Democratic ticket in 1896, appeared as an attorney for the state in the Nebraska rate case (Smythe *vs.* Ames), which was decided by the Supreme Court in 1898.

Supported reproduction costs

TIMES were hard, wages and prices were lower than they were when the railroads were built, and Mr. Bryan contended that "the present value of the roads, as measured by the cost of reproduction, is the basis upon which the profits should be computed."

The Supreme Court only partially agreed with him. It held that railroads were entitled to rates that would yield a fair return on a fair valuation, and that in making a valuation not only the cost of reproduction but the original cost of construction and all other elements of value should be given weight. The same principle was enunciated in a number of early railroad and public utility cases in which the weight given to the cost of reproduction resulted in valuations being made lower than they would have been if investment alone had been considered.

In spite of their theoretical legal right to a "fair return" many of the railroads were bankrupted by the panic and depression of the 'nineties, but soon after that period they became quite prosperous. Many persons believed they were getting too prosperous. It was alleged that their securities were watered and that they were charging excessive rates to earn a return on the water. Then Senator La Follette began to advocate a valuation as a basis for the regulation of rates. The Interstate Commerce Commission supported him.

Finally, in 1913, the valuation law of which he was the author, was passed. It was that law and not the Transportation Act of 1920, as many persons believe, that specifically required that the Interstate Commerce Commission should "ascertain and report in detail as to each piece of property, other than land, the original cost to date, the cost of reproduction new, the cost of reproduction less depreciation, and all other elements of value."

The railroads opposed a valuation and this law was written by the advocates of valuation. Why did they mention cost of reproduction? Presumably, first, because they knew the Supreme Court had required that it be considered, and, second, because they believed a valuation in which it was given weight would be less than the investment claimed by the railways.

La Follette saw reductions

SENATOR La Follette expressed great confidence that a valuation made under his law would justify substantial general reductions of rates.

Wages and prices were increasing be-

(*Continued on page 216*)



FAIRCHILD AERIAL PHOTOS

What would it cost to reproduce terminals like the Pennsylvania in New York? If the railroads did not own the land, could they buy it at any price?

Give the Contractor a Chance!

★

By Thomas Thorne Flagler

President, Associated General Contractors of America

ILLUSTRATIONS BY OSCAR CESARE

GENERAL contractors are targets for more bricks than the men of all other trades and professions combined. And, while some of these bricks are cast with ample reason, general contractors as a whole do not merit the almost universal suspicion and distrust in which they are held.

The industry of which they are a part is second only to agriculture in size and age—and disorganization. The claim for size is based on a program of about seven billion dollars in 1928. As to age, I can easily believe that after the first human beings had filled their stomachs they next contrived to fashion some sort of shelter. As to the disorganization that characterizes these two fundamental and essential industries, it is largely due, I believe, to the fact that they both are at the mercy of a marketing system which does not obtain for the better than average performer a fair return on the services rendered.

Why is the construction industry, which by reason of its product's permanency, furnishes the final resting place of all the nation's savings, so honey-combed with waste and irresponsibility that it does not have the confidence of its buying public?

Putting cheapness first

A MAN will retain a surgeon or a lawyer for the service he expects to receive and almost irrespective of the price. But when he undertakes to invest the savings of a lifetime in a building, he pursues the price fetish to its last ridiculous extreme. Ignoring skill, integrity and responsibility, he lets the work to the contractor who promises to do it cheapest, and then he tries to protect himself by setting up conflicting factors of authority and inspection that render an efficient performance impossible.

If the evils due to faulty organization and inefficiency fell on the heads



By reason of the permanency of its product the construction industry furnishes the final resting place for all of the nation's savings



WHEN you build, are you ready to pay an honest price for an honest service or do you try to get something for nothing? The latter tendency has given rise to many of the evils that beset the construction industry today. The remedy lies largely with you in your role of the building public

of the builders alone, the matter would be of restricted interest. However, the building public pays the bill in the long run and then passes it along in the shape of increased rent, expenses and costs so that every one ultimately contributes a share.

In attempting to set forth one man's views concerning certain detrimental customs and practices affecting construction, let it be understood that I do not wish to reflect on the skill, integrity or responsibility of the average architect, engineer, contractor, or producer of the manufactured articles used. I do say most emphatically, however, that there are entirely too many factors entering into the average construction project—factors which embody the maximum of conflicting interests, mutual discord and inefficiency.

Risk without protection

IT MAY be true that in years gone by contractors were considered a pretty hard lot. They had to be hard to survive. I don't know whether the present practice in competitive bidding grew out of this fact or whether our hard-boiled forefathers were victims, like ourselves, of a system under which the contractor, who assumes all the risk of successful performance, is furnished the least protection and has the least to say in the proceedings on a given job. For instance, isn't it ridiculous to ask a builder to sign a contract specifying a concrete floor slab and setting forth in detail just how the materials are to be proportioned, mixed and placed, and then, if all the directions are properly carried out and the slab fails, to make the builder entirely responsible? Yet such situations are created in many of the contracts let on the competitive basis.

I believe, of course, in free, fair competition. Where competitive bidding is used in connection with a road project, a bridge, a dam or a building that can be exactly drawn and specified and where it is confined to bidders who are fairly equal in ability and resources it furnishes an ideal method of awarding contracts.

But the owner who lets his work on the competitive basis without selecting for his bidders capable and responsible concerns, simply puts a premium on the man who plans to skimp the most. In this day of quantity survey and double take-offs, the cost estimates of responsible contractors vary by surprisingly small amounts. The wild fluctuations we see in so many lettings are the results of sorely pressed or irresponsible bids on the one hand, and complimentary bids (bids intended to lose)

on the other. Mr. Average Man has an implicit but often misplaced confidence in the so-called specifications. This mystic document consists of from 50 to 250 or more pages, frequently copied from previous specifications, old textbooks and literature put out by energetic manufacturers and material vendors.

I have seen in a specification prepared by a Chicago architect a provision that Vermont granite was to be used in the rough stone work of a building to be erected within sight of Stone Mountain, Georgia, one of the finest deposits of granite in America. To pay the freight from Vermont to Georgia on this granite would be obviously ridiculous.

A mistake or a "sleeper"

IF THE item were large enough and if time permitted, which it frequently doesn't, the point would be clarified. But if it did slip through into the contract documents it would either be through an honest mistake or it would be what we call a "sleeper," a provision put in by some tricky specification writer so that he might collect a little graft on threat of enforcing the clause literally.

I might write at length about the idiosyncrasies of specifications, but for the purpose of this article let me merely say that the present method of preparing specifications contributes to the inefficiency of the construction industry in two ways.

First, the average specification is wanting in clearness. It does not allow free choice of methods and material, quality, of course, considered, and it does not keep pace with the improvements constantly being made in field practices, as the actual operations on the jobs are called.

Second, by the very nature of its rigidity it fails to provide for changing conditions which may occur during the progress of the operation, so that what may be desirable at the beginning of the work may be very undesirable later on.

Not one set of plans out of a hundred is made entirely by the architect and his men. Usually the structural frame of the building is the work of an outside engineer. Occasionally the design of the frame is left to the bidder.

If there ever was a case of hitching the cart before the horse, this is it. Instead of leaving the design of the frame to the last, as is the present practice, it should be the first and most important consideration after the preliminary layout of the room arrangement. If I had a small part of the money that could be saved by fitting the architectural ornamentation to a carefully designed frame instead of trying to design a frame into a mass of architectural effects, I would be a rich man.

But the design of the building is only a small part of what we term "The Plans." Every mechanical feature must have a layout and design, every mould, cornice and ornament must be detailed. Of this great mass of drawing, how much is generally done by the architect? Well, hardly any.

Unfortunately, many architects feel that when they have made their sketches and later have completed what are called the architectural drawings, which contain a few details to a slightly larger scale, they have finished designing the building.

Other architects go a step further and expect to continue getting ideas and making additional details throughout the entire operation.

In either event the next step after the building is designed is to call in the person who is to design the frame. Then perhaps some favored manufacturer of valves and fittings is summoned to design and lay out the heating system. After this comes somebody to lay out the plumbing, somebody to plan the electric wiring, some one to plan the elevators, and some one to design the ventilating system, if any. In addition to this small army working through the architect is another army of draftsmen, designers and estimators working in the offices of the contractors, the lumber mills, the sheet metal people, the ornamental bronze and iron companies and numerous other firms.



It may be true that in years gone by contractors were considered a pretty hard lot. They had to be hard to survive

A case in point

LET us take a case in which an architect shows a lobby in an office building trimmed in marble.

Now there are a number of factors contributing to the cost of that marble job. First, the stone has to be quarried and cut. The surfaces which are to be exposed in the finished job must be polished, and it is not practical or even possible to perform these operations at the building. The cutting, polishing and

(*Continued on page 132*)

Chains Have Evils, Too

AND those who will lead the fight to stamp out the chain stores' evils are the chains themselves, because they are the greatest sufferers.

Here is a chain-store man who says that chains, to win public confidence, must wipe their slates clean

By W. T. Grant

Chairman of the Board, W. T. Grant Company



W. T. GRANT

A GREAT deal said and written about chain-store evils is merely bunk. Some of it, however, is true. The chain store idea is inherently sound, and it seems a pity to have it besmirched by the petty knavery of a few.

Chain stores, it must be understood, are not like peas in a pod. They differ as widely from each other as do independent stores. There are good ones, and I suppose there are bad ones in both types of merchandising. In the public mind, chains seem to be grouped together. If a single unit of one company gets into disrepute in a community, people are soon saying to themselves, "That's a sample of chain-store selling."

The incident may have been only a dishonest employe's attempt to short-change a customer or misrepresent some merchandise, but the result is as hard on chains generally as if every unit had transgressed. Since the public makes no distinction between chain systems, it is squarely up to the honest majority of chain-store executives not only to stay above suspicion themselves, but to see that every chain with which they come in contact stands equally foursquare.

Evils do exist in chains

THERE is no use trying to fool anyone. Evils do exist in some chain stores. It is up to the chain-store business to wipe its slates clean. This may seem to be a somewhat elemental discussion of ethics, or lack of ethics. It is not written with the idea of creating a sensation, but rather to remind chains and independents alike that all retailers owe a fundamental duty to the public. One thing we all have in common is the necessity of sticking to honesty.

Chains are accused of being too shrewd in their buying. It is said that some of them tie up a manufacturer and then begin to beat down prices. Also it is alleged that they demand concessions of one sort or another which are the equivalent of lower prices. Maybe chains do these things in some cases, but I am inclined to feel that the critics have missed more important evils, and have stressed one which is of comparatively little importance. Selling at no profit, questionable financing, operating like a trust and other uneconomical practices are perhaps worse sore spots today.

While I can only speak positively for my own firm, I sincerely doubt that chain buying practices are as bad as they are said to be. We are still buying from some of the firms we dealt with when we had only one store.

In other words, we have bought from many of the same sources for more than

20 years. If we had been hammering down prices unreasonably all the time could they have stayed in business? Could they have continued to supply us with merchandise of uniformly good quality? Would we have had their good will over such a period? In every case I believe our relations with producers are satisfactory to both sides.

Price is not the all-important consideration it is pictured. It is by no means the great advantage commonly supposed. As an independent, I was able to do business on a smaller margin of gross profit than we can with more than 200 stores. Size brings restrictions along with its benefits. The wide-awake independent can go to market and get bargains in odd lots and in small quantities which a chain of stores cannot touch.

Retailing will be better off when all merchants begin to see that there are wastes right down the line which can be eliminated. Buying in quantity is an advantage, but it is not so important as the uninitiated believe.

Just who does buy at home

IT IS often charged that chains do not benefit the community because they do not buy at home. Does the independent merchant? If the chains do not buy at home, where do they buy? They all buy some place. Look over a list of the sources from which a chain buys, and it will be seen the geographic distribution is surprisingly wide. A lot of communities are benefited by chain-store buying, but no brass bands are out celebrating the fact.

I sometimes suspect that manufacturers are too much to blame for their own marketing troubles. A fine product will win out in any competition, no matter how stiff. The manufacturer with a good product offers an opportunity to us but often he acts as though it was anything but that. Many of them truckle and bow and scrape before customers until respect for both product and producer have vanished.

Hundreds, probably thousands, of buyers or purchasing agents have been ruined by manufacturers who pat them on the back and make them feel important because they are spending the money of someone else. The buyer tends to get an exaggerated opinion of his own importance unless he is an unusually sensible man.

When the manufacturers spoil him by telling him that he is a great man, just the sort of fellow who is likely to go far, they are making trouble for themselves and others. The buyer may become almost impossible to deal with on any fair basis. If marketing problems are difficult, they will become no easier through the establishment of relationships which are anything but businesslike.

The methods of some chains make me just as tired as they do any critical independent. There are chains which are obviously set up for no reason except to make money. That is not enough. There should be honest value in the merchandise and a service in handling it. Chain-store clerks are often slovenly, rude and fresh. That is a pity; I firmly believe that chain-store operation offers one of the best futures a young man can find today. By proving this in our own organization, we have no trouble in getting a high type of well educated applicants for positions.

The stock and service in two apparently similar chain stores can be radically different. One may be highly efficient, while the other is out of everything the public really wants, and will make a painful effort to sell something "just as good." If the merchandise and the price are what they should be, there is no need to entice the public's money away after getting it into a store on a profitless price bait.

A friend of mine, incidentally a chain-store executive, stopped in a chain grocery store near New York City to make a few purchases. He ordered a pound and a half of beef. When the clerk handed it to him, he was told that the price was 75 cents.

"But" said my friend, "the sign in your window says 33 cents a pound. If I still know how to figure that makes 50 cents."

Then up jumped the joker

"OH, YES," laughed the clerk, "but that only applies when you buy a whole side of beef." Thereupon my friend told the clerk where he could go and take the meat with him. Such incidents make me more impatient than they do any independent merchant. That sign in the window was partly true, but to the customer it was almost entirely untrue. It sounds unbelievable, yet whether the blame rests with the chain management or with the local manager, the effect is the same in the public eye, and all chains get the full force of such apparently trivial crookedness, because the public has not yet learned that there is a vast difference between chains.

There have been some indefinite charges about short-changing and that some chain units have been using crooked adding machines. This can be carried on only by the local managers, but unless chains stamp out such practices, they are going to suffer, and suffer long and painfully.

Any manager clever enough and crooked enough to steal from the public will find twice as many opportunities to steal from his own organization. It takes more than a fair wage policy to get good men.

Don't try to cheat the clerks

THE EMPLOYES must be made to feel that the whole organization is sound and healthy from the heart out. Unless the humblest clerk respects and trusts the higher executives, he cannot have that hustling, brisk, self-respecting attitude which perhaps as much as anything else is responsible for chain-store success generally.

Possibly the worst practice a chain can employ, and at the same time the most difficult to detect, would be to adopt the practices of the old-fashioned trust. Just the other day, the executive head of one of the large grocery chains told me he was positive that some grocery chains were putting "fighting" stores into communities with the idea of eliminating all other competition by ruthless price cutting.

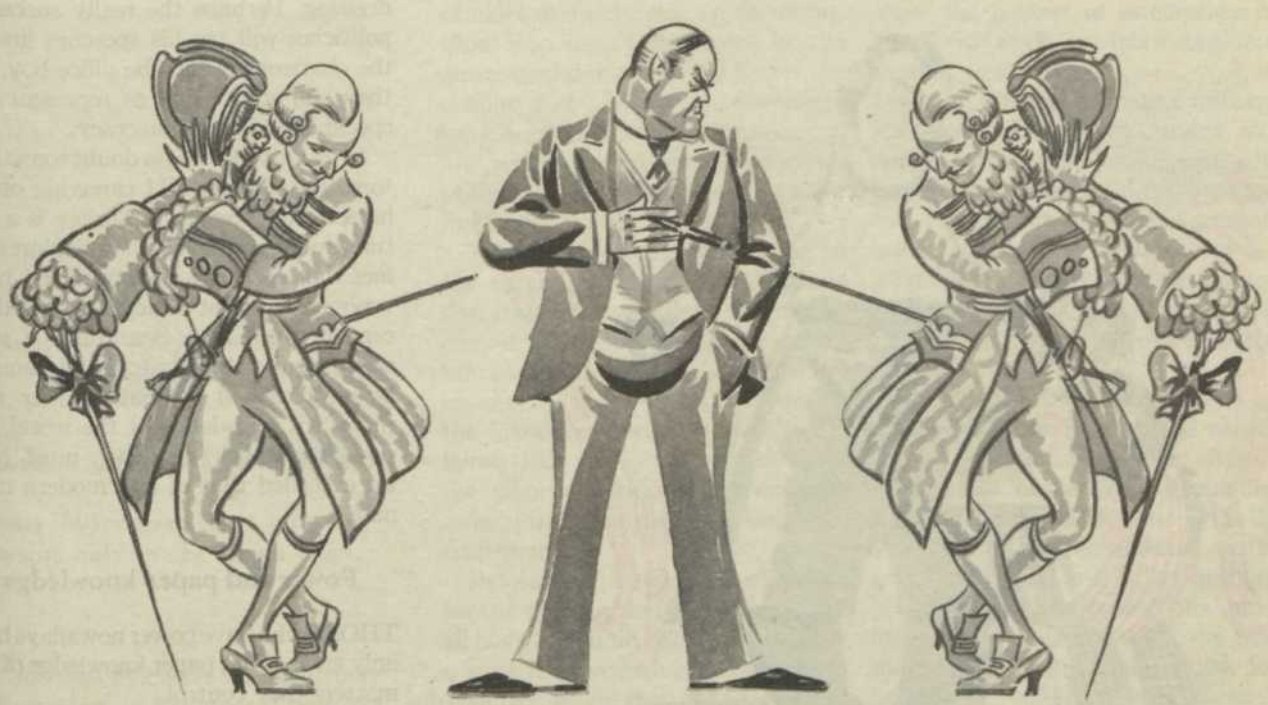
Once this end is achieved, prices will go back up. Prices in communities where units are more advantageously located are raised to allow for the temporary drop in volume in the units doing the price cutting.

There may be some who hold that a little of this thing is all right. If it is wrong to do business without a profit on a large scale, it is also wrong to do business without profit on a small scale. The public seems to benefit at the time, but it pays for such merchandising folly in the end. I do not feel that I have the right to do business at a loss on any commodity. This, it seems to me, is the very heart of most of the chills and fever of distribution.

Of course I do not believe in price maintenance that means sticking to a ridiculously high figure set by a misguided manufacturer. I feel that the retailer should have a lot to say in determining the price the public is asked to pay. The manufacturer should not ask an impossible price in the first place. The public is the retort in which prices must be tested, and if the tests show a weakness, the producer is not justified in running to the lawmakers to ask for a law enabling him to fix prices at artificial levels.

In the matter of price, independents really have little cause to throw much mud at the chains. Price cutting and

(*Continued on page 144*)



The shock would be mutual if the Fathers of the Republic met their modern admirers

The Sedentary Age

By BERTRAND RUSSELL

ILLUSTRATIONS BY LOUIS FANCHER

THE methods of organization and production of the present have immense advantages over those of the past—advantages of which most moderns are fully conscious. They have, however, certain disadvantages, which, although of less weight in the balance, are important enough to deserve recognition in the hope that some way may be found of mitigating them.

They are connected in the main with two facts, one, which has been generally recognized, namely, the greater specialization of work in an advanced system of production; the other, which has been much less noticed, that all the most important work is done by sedentary people, who stay almost motionless in their offices.

Wellington rode around the battlefield of Waterloo on a horse, and saw for himself what was happening in every part of it. Foch would have been just as competent at his job if he had not known how to sit on a horse, since his knowledge of the operations in progress was obtained sitting in a bureau surrounded by telephones and far enough from the guns to be not too much disturbed by noise.

Generals have changed

IN old days the qualities required in a general were not totally unlike those required in a soldier. Now they are different at every point. The foot soldier must be able to march long distances, many soldiers must be proficient on horseback, and all soldiers must be brave under fire. The general need never walk except from his office to his motor car; he has no time to use a horse, because automobiles are quicker. If, by some extraordinary accident, he finds himself under fire, it is a proof of incompetence.

The qualities that he needs are those of a business organizer. The armies of the world have not yet discovered this fact, and still choose as their generals men who have distinguished themselves as officers. The country which first discovers the truth about modern generalship, and therefore chooses as its commanding officers self-made millionaires, will be invincible in the next war until the other nations are compelled to follow suit.

What applies to the command of armies applies equally to all other important enterprises in the modern world. I do not know whether Henry Ford has ever ridden in one of his own machines, but to have done so would certainly not have improved him at his job. In big business the ultimate power rests with the banks, but a banker is not expected to visit the factories, stockyards or ranches, which his credit keeps in being. I am aware from advertisements that Mr. Gillette does not wear chin whiskers, but he might without impairing the quality of his razors.

In old days it was thought that the eye of the master was necessary to cause employes to do their best, but nothing



I learned that the cobbler was visiting the blacksmith and discussing with him the affairs of China

short of supernatural powers would enable, say, the president of the Pennsylvania Railroad to keep his eye on all his employes.

The same thing has happened in government as in business, although for sentimental reasons a man is still expected to be on the spot on great occasions. Mr. Hoover visited the area of the Mississippi floods, but he could have dealt with the matter just as well from Washington if the sentimental factor had not intervened. To decide a question concerning the St. Lawrence Waterway it is not necessary, indeed it is a waste of time, to visit the region concerned; everything can be done just as well by means of maps and statistics and the reports of geological experts.

The day of remote control

AS a result of all this, our age, so far as the great ones of the earth are concerned, is the sedentary age. Power is in the hands of men who never see, or at any rate never need to see, the actual work that they control.

Even politicians, who in the old days used to meet the electorate at great meetings, and still, through force of tradition, occasionally do so, are being relieved of this necessity by the radio, and will soon cause their features and mannerisms to be familiarized by means of the talkies.

The man who speaks straight to the great heart of the people, whose golden words stir enthusiasm in the humblest homes throughout the land, will never come face to face with those he is addressing. Perhaps the really successful politician will try his speeches first on the charwoman and the office boy, but they will suffice him as representative specimens of the democracy.

In all this there is no doubt something to regret. Charles XII careering on his horse from Sweden to Turkey is a picturesque figure; every boy deplores the fact that there are no longer any highwaymen and that piracy has ceased except in the China Sea. Julius Caesar was captured by pirates, and came to be on terms of intimate banter with them; his knowledge of the world, derived from such incidents, must have far exceeded that of any modern magnate.



Foch need not have known how to sit on a horse

Power and paper knowledge

THOSE who have power nowadays have only an abstract paper knowledge of the matters they control.

I myself have invested money (alas, very little) in Pernambuco, a place of which I had never heard until I did so. This divorce of power from experience is a serious matter. In politics it is in some degree mitigated by democracy, but in business there is, as yet, nothing whatever to mitigate it.

This is one of the reasons for the growth of socialism in Europe. The worker dislikes the feeling that his fate is in the hands of men who have probably never seen the town in which he works and have no concrete knowledge of the sort of life he has to live. It is true that the value of this direct knowledge derived from personal experience is often less than that of the more abstract knowledge to be acquired in an office.

The distress in the mining industry in England, for example, might be relieved by the discovery of a new coal field, but a man sitting in a London office would be much more likely to know how to take advantage of such a discovery than a man who had spent his life becoming familiar with mines.

Nevertheless, the absence of direct and varied experience is regrettable, and this absence exists both in the case of the great administrator and the man whose whole working life is spent in a coal mine.

The situation of the



Every boy regrets that piracy persists only in the China Sea

great modern executive is really only one illustration of the general principle of specialization. Just as his experience is less varied than that of Julius Caesar or the Duke of Wellington, so the experience of a man who performs one monotonous task in a factory is less varied than that of the old-fashioned handicraftsman.

I spend a part of each year in a small village in Cornwall, where the cobbler and the blacksmith carry on their trade by the time honored methods of the past; their work is better and cheaper than any to be found where modern industrial methods exist. The two men are of quite exceptional intelligence, and the width of their interests is astonishing. It has happened to me to have difficulty in finding the cobbler, and to discover at last that he was visiting the blacksmith to discuss the affairs of China. I found on investigation that the views of both were shrewd and singularly well informed. They both enjoy life and have a leisurely existence, and I am persuaded that, although their earnings are small, their happiness exceeds that of the great majority of industrial workers. I may add that these two men are the leaders of the local Labor Party.

The privileged minorities

VARIETY in work is nowadays the privilege of a majority composed of two opposite sections. On the one hand are those who represent the decaying remnants of older methods, and on the other, those who supply the brains for the newer mechanisms. Of the former the cobbler and blacksmith of whom I have been speaking are instances; so are agricultural laborers, sailors on sailing ships, pioneers and empire builders.

The charm of empire building to the energetic young Englishman is that it supplies work without monotony—a charm so great as to make him prefer the risks of fever and assassination in an African swamp to the lucrative safety of an office at home. But the empire builder and the pioneer belong to a vanishing order, just as truly as does the handicraftsman.

Before long there will be no frontier for the pioneer, and the empires will all have been built. There is danger in this, since it drives adventurous spirits into politics, where they are likely to be subversive and violent.

It is true that for a man whose pleasure consists in using his brains rather than exercising power over other men, there is great scope within the modern system. Men of science, inventors, economists, consulting engineers, medical specialists, all find opportunity to exercise the highest of intelligence combined with work that has a considerable amount of variety.

A man who has to make a mineralogical survey of Northern Canada, for example, can combine brains with adventure in a thoroughly old-fashioned way; but such jobs are few, and in general the brain worker is condemned to a life which is physically unadventurous. If he is satisfied with mental adventure, he may be happy; if not, he is likely to suffer.

It is difficult from a practical point of view to maintain that the old variety in work should be preserved. Kropotkin used to urge that all the work connected with books should be done by authors. When an author had finished writing a book he should find other authors to help with the printing and binding. One infers, what is otherwise known, that he did not live in a literary clique, for, if he had, he would have realized the difficulty of getting one author to set up another author's book.

A move for fewer books

THE only strong argument I can see in favor of his plan is that it would im-

(*Continued on page 142*)



The consultant will maintain a Robot in his office to deal with the ladies who wish to reduce their weight

The Map of the Nation's Business

By FRANK GREENE

Managing Editor, Bradstreet's

ACCORDING to the almanac and the thermometer, midsummer is and has been here but it has not been a traditional midsummer in either trade or industry. That is, production as a whole has been and is at a higher rate than ever before in peace time while good digestion in the form of trade distribution waits upon business appetite to an extent rarely if ever witnessed before.

What of the future?

THIS in brief sums up more than half of the summer season of 1929 but there still remains a suggestion of the old war-time question of "where do we go from here" in the facts that the crop situation appears less satisfactory than a year ago at this time, the money tightness of spring has reappeared with the enormous movement to market of new wheat at considerably higher prices than ruled a year ago and speculation, whether in stocks or grains, although discouraged at times, remains as rampant as ever before at this ordinarily quiet period.

Evidence backing up these statements as to speculative activity is at hand in the July reports of record sales of wheat futures which broke the hitherto peak totals of December, 1924; in the fifth largest month's sales of stocks on the New York Exchange; high record totals of similar transactions on other exchanges or stock markets; the largest monthly bond transactions in more than a year and the third largest totals of bank clearings and bank debits—all of this with brokers' loans at a new high; call money ranging from eight to 12 per cent; time loans one to two per cent above a month ago and an advance in Federal Reserve rates overhanging the market for six months past. [Since the above was written the bank rate has been put at six per cent with only a momentary effect on the stock market.—Editor.] In industry, iron and steel have continued to hold their places as the leading barometers of production with pig iron in July showing the third largest monthly and the fifth largest daily production ever recorded; steel ingot production only a small percentage off from the top that was reached in May; both of these happenings topping seven months' totals of production surpassing all previous years.

BUSINESS INDICATORS

Latest month of 1929 and the same month of 1928 and 1927 compared with the same month of 1926

Production and Mill Consumption	*Latest Month Available*	*Same Month* 1926 = 100%		
		1929	1928	1927
Pig Iron	July	117	95	92
Steel Ingots	July	133	109	92
Copper—Mine (U. S.)	July	110	102	91
Zinc—Primary	July	112	105	98
Coal—Bituminous	July	94	88	81
Petroleum	July*	137	116	121
Electrical Energy	June	134	118	110
Cotton Consumption	July*	120	97	129
Automobiles	July*	123	111	78
Rubber Tires	May	152	126	120
Cement—Portland	June	99	104	102
Construction				
Contracts Awarded—36 States—Dollar Values	July	125	117	107
Contracts Awarded—36 States—Square Feet	July	108	124	103
Labor				
Factory Employment (U.S.)—F.R.B.	June	99	94	97
Factory Pay Roll (U.S.)—F.R.B.	June	102	95	97
Wages—Per Capita (N.Y.)	June	104	102	101
Transportation				
Freight Car Loadings	July	100	95	95
Gross Operating Revenues	June	98	93	99
Net Operating Income	June	88	80	82
Trade—Domestic				
Bank Debits—New York City	July	178	127	111
Bank Debits—Outside (X)	July	117	100	97
Business Failures—Number	July	109	107	109
Business Failures—Liabilities	July	109	100	145
Department Stores Sales—F.R.B.	July	103	100	96
Five and Ten Cent Store Sales—4 Chains	July	124	112	107
Mail Order Houses Sales—2 Houses	July	167	126	103
Wholesale Trade—F.R.B.	June	100	98	96
Trade—Foreign				
Exports	June	117	115	106
Imports	June	105	94	106
Finance				
Stock Prices—30 Industrials	July	220	135	112
Stock Prices—20 Railroads	July	151	120	120
Number of Shares Traded	July	239	106	102
Bond Prices—40 Bonds	July	98	101	102
Value of Bonds Sold	July	128	86	111
New Corporate Capital Issues—Domestic	July	262	185	126
Interest Rates—Commercial Paper, 4-6 Months	July	132	130	103
Wholesale Prices				
U. S. Bureau of Labor Statistics	June	96	97	93
Bradstreet's	July	100	104	99
Dun's	July	104	105	101

	July 1914 = 100% *June* 1929	*June* 1928	*June* 1927
Retail Purchasing Power, July 1914—100			
Purchasing Power of the Retail Dollar	63	62	61
Purchasing Power of the Clothing Dollar	60	59	59
Purchasing Power of the Food Dollar	66	65	63
Purchasing Power of the Rent Dollar	63	62	59

X Excl. Boston, Cleveland, Chicago, Los Angeles, Philadelphia, Detroit, San Francisco, and New York.

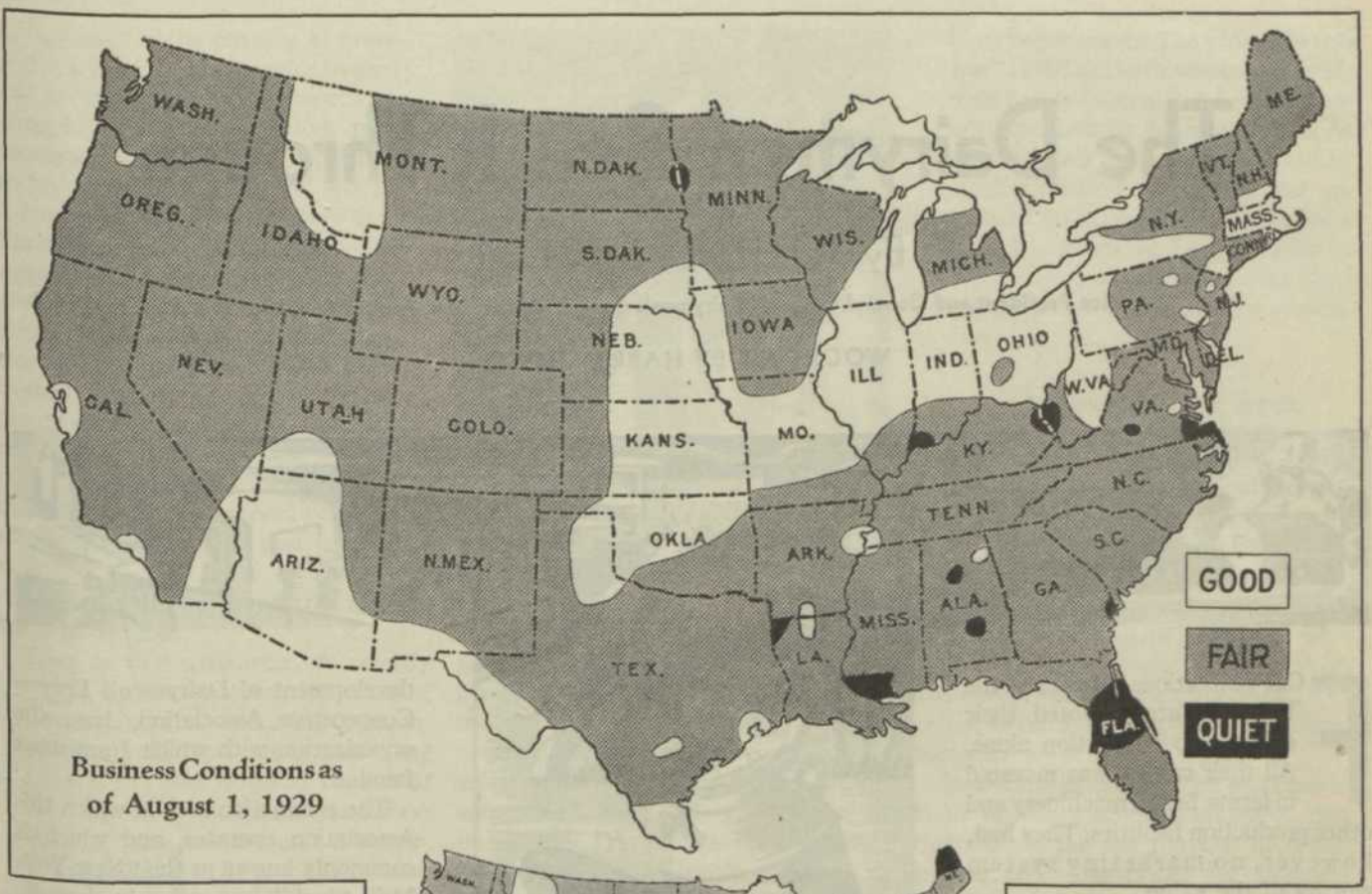
* Preliminary.

Prepared for *Nation's Business* by General Statistical Division, Western Electric Company.

Heavy industries active

MACHINERY and tool production has been of record size and unfilled orders for locomotives about equal the total of shipments for 1928. In others of the heavy industries too, activity is manifest. Soft coal production for July shows gains over June and July last year; production of electricity for June despite the lessened output from water power, consequent upon a hot, dry season, was only 2.6 per cent below the December peak and production of petroleum and of its chief offspring, gasoline, set up new peaks in the first month of summer with all of these commodities except coal recording new high records of production or use for the half year. Shoe manufacturing for June and the half year increased 2.3 per cent in each case over a year ago.

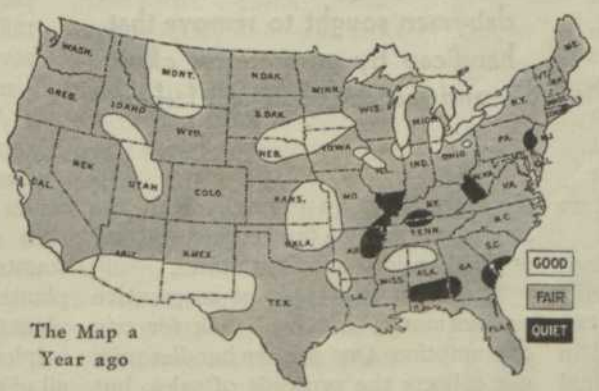
Car loadings were swelled by probably record iron ore shipments and an unexampled early and heavy movement of winter wheat passed the 1,100,000



Business Conditions as of August 1, 1929



The Map of Last Month



The Map a Year ago

A FURTHER slight clearing up of the slow spots in the southeastern quarter has followed the better trend of reports as to cotton prospects and tobacco prices in Georgia and gains in sentiment further westward. Florida, wrestling with bank and fruit fly troubles, explains the dull spot in that state. Higher prices for wheat and good prospects for corn west of the Mississippi have brightened the map in that area

car mark in the last week of July, the earliest on record, with the figures for live stock finally showing a gain.

Even new building permit values which have lagged slightly year by year since 1925, in July actually exceeded those of June—something unusual this—and although still well below those of July last year were only a small percentage behind the seven months of 1928.

Silk deliveries high

IT IS only fair to note, however, that orders for lumber of late have been below production and that brick production is well below a year ago.

In the textile trades deliveries of silk to mills in July were only twice exceeded. They were eight per cent larger than for the seven months last year. In cotton goods, the hot weather in June and July stimulated sales of light wear, wash dress materials especially having had a big season. Curtailment for July was at the rate of 20 per cent, sales exceeded output and unfilled orders increased. The continuance of the British cotton mill strike may have important effects upon our export trade as well as upon that of some European countries. In woolen goods manufacturing, despite better buying and stronger prices for combing wools, the new season's openings of new cloths reveal a slight reduction from prices that prevailed a year ago.

In lines of distribution, wholesale trade for June and the half year showed gains of 2.9 per cent in each case over the like period of last year. Groceries, affected by chain-store competition, was the only one of nine lines to show a decrease from a year ago for the six months' period.

Chain sales grow

IN RETAIL trade it must be recalled that July this year had one more business day than a year ago but the sales of mail-order and chain stores return increases so large that this difference—usually estimated at four per cent—

(*Continued on page 120*)

The Dairymen See It Through

By JOHN D. MILLER

Vice President and General Counsel, Dairymen's League Cooperative Association, Inc.

WOODCUTS BY HARRY CIMINO



FARMERS long have been handicapped by lack of adequate marketing agencies. New York dairymen sought to remove that handicap by cooperative effort —and succeeded in epic fashion

FOR generations farmers of the United States devoted their energies to production alone. All their capital was invested in farms, herds, machinery and other production facilities. They had, however, no marketing system worthy of the name.

In due time they found that gradually but surely they were falling behind in the race. Many of them awoke to the fact that a large part of their trouble was caused by lack of adequate marketing agencies. They saw that if they were to prosper, they must market more efficiently the crops that they had efficiently produced.

One of their products, the annual value of which usually exceeds that of any other farm products is milk. It, too, shared with other products the general lack of adequate marketing agencies. Out of the situation came cooperative marketing, and it is with that phase of the movement involving the handling of milk, that we are concerned here.

Cooperative marketing associations dealing in milk and milk products may in a general way be divided into two classes: those principally interested in handling milk that is consumed in fluid form and those principally interested in processing milk into butter, cheese or condensed milk and marketing these products.

Of the latter class, the Land O'Lakes Creameries, Inc., of Minnesota, may be mentioned. It is the largest cooperative butter marketing organization in the United States.



Of the other class, Dairymen's League Cooperative Association, Inc., of New York, provides an example. It is the largest cooperative fluid milk marketing association in the United States.

There are two types of cooperative associations selling fluid milk for city consumption. One neither handles milk nor collects the proceeds of sales, but functions as a collective bargaining agent for farmer members. The other handles milk, collects the proceeds of sales and, after deducting expenses, distributes the remainder to farmer members in payment for milk.

Associations of both types are self-help and mutual-help organizations. The type of the organization in every instance is determined by conditions prevailing in the region where the association operates.

Let us turn now to the origin and development of Dairymen's League Cooperative Association, Inc., the organization with which I am most familiar.

The production area in which this Association operates, and which is commonly known as the "New York Milk Shed," is a princely domain. It is more than 400 miles wide and long. It is covered with a network of railroads and improved highways. It embraces the entire milk-producing area in New York State, northern Pennsylvania, and northern New Jersey, and also includes a fringe along the western borders of Vermont, Massachusetts and Connecticut. In this production area, and in the cities this area supplies with milk, resides approximately one-seventh of the population of the United States.

At the beginning of the present century, the 70,000 or so dairy farmers in this area found themselves in a precarious position. Middlemen owned substantially all of the country milk receiving and shipping plants, and all of the city distributing plants. Farmers individually were as helpless as if the middlemen had owned all of the railroads that transported the milk to market.

Lower prices resulted

CONCERNS distributing milk in the cities avoided locating country buying plants close enough to each other to cause competition in buying. But in the cities there was strenuous competition between them in selling.

This system of noncompetitive buying and competitive selling could have but one result. Each distributor sought

to buy milk in the country at lower and still lower prices in order to gain an advantage in the competitive struggle in the cities. Prices paid farmers became, and long continued to be, unduly low.

Nor were low prices the only evil. Farmers suffered severe losses because of the insolvency of honest distributors. Another and more frequent source of loss was the practice on the part of unscrupulous dealers of operating country buying plants only a few months and then moving to other localities, leaving their indebtedness to the farmers unpaid. Some of them even defrauded farmers on weights and tests of milk.

The condition of dairy farmers became intolerable.

They at first attempted to remedy the evils by local cooperation, that is, by acquiring and operating community-owned milk receiving and shipping plants. This was done in scores of communities. It soon was found, however, that while they could avoid being subject to petit larceny, by operating these plants, they were powerless to solve the greater problems involved.



Their operations were so small that they could not afford to maintain credit experts to pass on the financial strength of buyers. In making sales, they still had to accept the prices that city distributors would pay.

Then came the demand for territory-wide organization.

Failure came at first

THE first attempt to bring this about led to the formation of what was known as The Five States Milk Producers' Association. It was short-lived. It erred by undue haste. With but relatively few members, it demanded that distributors pay the price that it fixed for milk. Distributors refused.

This brought on the first of the struggles commonly known as milk wars.

For five days farmer-members of the Association refused to deliver milk, but finding that distributors easily supplied their needs from other sources, the farmers surrendered. The situation seemed hopeless. Conditions grew worse instead of better.

Shortly thereafter, in 1905, dairy farmers in Orange County, New York, formed the nucleus of what later became the Dairymen's League. Each agreed to pay dues periodically, and



The annual value of milk usually exceeds that of any other farm product

the funds were used to send out organizers to other localities. By 1909, enough members had been obtained to warrant incorporation.

Organization work was continued for seven years longer and finally, in the summer of 1916, 11 years after its birth, the Dairymen's League, Inc., notified milk distributors that on October 1 the prices paid farmers for milk would be the prices fixed by the League and not those fixed by the buyers.

This brought on the second milk war, which commenced on October 1, 1916, and continued for 11 days.

Excitement ran high. Here and there were acts of violence. An occasional farmer who persisted in delivering milk to the distributors found his milk dumped in the gutter. Generally speaking, however, there was little violence. Thousands of farmers who had not yet joined the League became members and refused to deliver their milk.

Chaos reigned in milk-distributing circles in the city. Millions of dollars were lost to farmers and to distributors, while city consumers were deprived of their usual supply of milk.

Distributors finally agreed to pay the prices the League demanded. While the increase in prices that farmers thus obtained was, of course, highly beneficial to them, the greater benefit lay in the recognition of the League as the exponent of the principle of collective bargaining. Thus, for the first time, farmers had a territory-wide organization that could speak for them in price negotiations. The year 1916 was the "1776" of the farmers. Independence had been won, but a sound government had to be established. At the League's annual meeting in December, 1916, a committee was appointed to investigate and report a plan by which the League could be transformed from a bargaining association into a merchandising association.

The war delayed work

THE entry of the United States into the World War brought marketing problems peculiar to war conditions and the work of reorganization was delayed.

During the War representatives of the Federal Food Administration were influential in determining prices. With the exception of those paid during October, 1918, the prices were fairly satisfactory.

In December, 1918, when representatives of the Dairymen's League met distributors for the purpose of determining the milk prices for January, 1919, a telegram was received saying that as a result of the Armistice the Federal Food Administration would no longer act as mediator in determining milk prices.

The price paid farmers for the month of December, as approved by the Federal Food Administration, was $4.06 per



For the last three years milk prices paid to dairymen of the League have improved

100 pounds. Representatives of the League then offered to sell the milk to distributors during the month of January for $4.01 per 100 pounds. This offer was refused, the distributors naming $3.54 as their maximum price.

Reorganization needed

THIS ultimatum brought on the third milk war, a struggle that lasted 18 days and which brought heavy losses to farmers and distributors. The innocent third party—the consuming public—was again deprived of milk.

Finally the distributors surrendered and agreed to pay the price the farmers demanded.

This war, with all its attendant losses, emphasized the need of reorganization. Plans for such reorganization were speeded and in March, 1919, Dairymen's League Cooperative Association, Inc., was incorporated as successor of the old Dairymen's League, Inc.

By-laws and membership contracts were printed and distributed. They were studied and discussed for about 20 months before, with a few minor changes, they were approved. It was decided to commence operations under the new plan as soon as 50,000 membership contracts had been signed. This number was obtained and operations commenced on May 1, 1921.



About half the League's milk is delivered by farmers to League plants

Space will not permit a discussion of the details of this plan. Suffice it to say that one of its fundamental principles is that surplus should not be permitted to depress the prices of the entire supply.

This surplus problem of the Dairymen's League is somewhat analogous to the surplus problem of all American Agriculture. The League has learned that, while legislation may be helpful, the problem in its final analysis is one of efficient marketing.

One of the most vexatious factors of the League's surplus problem proved to be the equitable distribution of surplus losses so that each producer would pay his just proportion. The League has accomplished such a distribution of losses as far as its own members are concerned, although League members bear a greater part of the surplus burden than do nonmembers. The fact remains, however, that the prices received by both are higher than they would be but for League operations.

Members of the League have the right to withdraw during the last half of February each year, such withdrawal becoming effective on following April 1. The number of active members in April, 1929 was 1,300 more than in April, 1928. Gross sales for the fiscal year ending with March, 1928, were approximately $82,500,000, and for the year ending with March, 1929, approximately $85,600,000. For three years past, the monthly milk price paid farmers has usually been more than the price paid in the same month of the previous year.

Adequate financing of their marketing organizations is one of the difficult problems facing all farmers engaged in collective handling, processing and selling of their products.

League members, in writing their plan of reorganization, recognized that individually their ability to finance their organization was small, but collectively it was large, and that a method should be devised to mobilize their financial strength.

They first considered financing by the issue of capital stock, but saw that this plan had its limitations. The new League is a nonstock, membership corporation. It is financed by loans from members, all creating a revolving capital fund. For these loans, certificates of indebtedness are issued to members.

For the first five years, none of these certificates matured, but thereafter one series matured annually. Three issues aggregating $11,500,000 have matured and been paid on or before maturity. On all loans farmers have received six per cent interest from the beginning.

The League now has a capital of about $13,000,000, and while the membership contracts authorize the League to deduct from the monthly milk checks of farmers as much as the directors think necessary to meet capital requirements, the average amount loaned by farmers for this purpose is less than $300 each.

A part of such capital is invested in country receiving, processing and shipping plants, a part in wholesale distributing plants in the cities, and the remainder is used for working capital. The League now has more then 250 country plants.

The League sells but little milk at retail. About half of its milk is delivered by farmers to country plants owned by distributors to whom it is sold. The other half is delivered by farmers to League-owned plants.

Was fought in courts

IN CONNECTION with the growth of the League mention must be made of the development of cooperative marketing law. As long as farmers were satisfied to have only locally-owned milk plants, their right to combine for this purpose was not challenged. But as soon as they commenced to operate in a larger way, their right was challenged in the courts.

Officers or directors of cooperative milk-marketing associations were indicted under the laws of California, Minnesota, Illinois, Ohio and New

(*Continued on page 225*)



The farmers organized to improve conditions for themselves and their children

Although machinery is often blamed for unemployment, a recent survey of the nation's life indicates that

Machines Make Jobs

By WESLEY C. MITCHELL

Director, National Bureau of Economic Research

DECORATION BY D'ARCY



LABOR-SAVING machinery is also job-making machinery. Proof of this statement has been difficult in the face of continued unemployment due in large measure to the increased use of labor-saving machines but the survey of the country's life recently completed by the National Bureau of Economic Research for the Hoover Committee on Recent Economic Changes supplies striking evidence that it is true.

There has been, and now is, a marked trend toward elimination of unemployment, and there is no reason to believe that this trend will not continue. Mechanization of industry has produced not only new methods, new goods and new habits, but also a host of new jobs, a whole new occupational structure of extraordinary proportions.

Even as the machine has wiped out old jobs it has created new ones. So far the number of new jobs has lagged behind the number of jobs wiped out. It probably will continue to lag, inasmuch as we are making no definite organized effort to create jobs and are depending mainly on the automatic workings of the economic system. We have no guarantee that the new jobs created will correspond in exact number and timing to the jobs eliminated. We may have not inconsiderable periods of unemployment on as large a scale as ever in the past. For example, an enormous unemployment of negroes will result if the mechanical cotton picker meets its promoter's expectations, and a scarcely less serious threat to farm workers is made by new types of grain-cutting machinery. Nevertheless, the major phases of the change industry has undergone the past eight

years indicate that the trend is favorable.

It is obvious that there has been a change almost unprecedented in scale. About 1921, under pressure of hard times we began to apply a new measure of sense and intelligence to the job.

The immediate result was an increase in production and a variety of new goods, followed inevitably by a keener competition for the consumer's dollar. As soon as a new product appeared in the market the position of an old product was threatened. This endangered not only the old product but the factory that made it, the industry that had grown up around it, the section in which this industry had located its plants and the men dependent upon it for work. An economic war between the new and the old set in! Tens of thousands of workers displaced by machines had to seek new jobs and even new trades.

The new threatened and the old fought back. It, too, began to improve, to lower costs, to discard and revise, to find new uses for its products. Necessity is not as inspiring a goad to action as ambition but it is effective nevertheless. Change which had been voluntary and limited suddenly became mandatory and general. Our whole industrial structure turned over.

Old industries still remain

THAT is the background of our present position. As we look at it we may be astonished to find that most of the old is still with us. It is changed and made over, here and there almost unrecognizable, but it has survived. Few if any old industries have disappeared. Despite the machine and its economies in labor we have, as a whole, vastly expanded our structure.

Now, with this fact in mind, suppose we look at those particular phases of the change which have had most bearing on the worker and his job.

Perhaps most significant to the jobholder, is the fact that there has been a decided massing of effort. This began in whole industries and has since extended down to the smallest jobs. It is based on the age-old adage that two heads are better than one.

The far-flung units of threatened industries came together to repel the attack by concerted action. Cooperation and association became a rule between companies which in their own fields were still competitors.

Within companies there was a similar massing of brain and effort. So-called "one-man" control vanished and in its place came management by committees

BUSINESS FOLK IN



EDITOR AND WRITER

Associated Business Papers' award goes to Flint Garrison, *Dry Goods Reporter* editor for wholesale items



RADIO RESEARCHER

Succeeding in the consular service, Pattie Fields moves to radio broadcasting. She does research work



AIDS CENSUS

L. S. Horner, Niles-Bement-Pond president, heads the revision group of the Manufacturers' Census



POWER IN THE AIR

At 27, W. S. Paley heads the Columbia Broadcasting System. When television comes, he'll be there, too



BUYS FAMED HOTEL

In 1901 F. E. Hight began managing the Willard, Washington hotel. Now he heads the group buying it



MUSTN'T FIGHT

E. L. Robins, Meridian, Miss., new head of National Fertilizer Association, says members must cooperate

THE MONTH'S NEWS



REACHES TOP

L. A. Miller heads Willys-Overland, Toledo, succeeding John N. Willys. He long has been a Willys man



STILL SELLS ICE

Ice, coal and work spelled success for Samuel Rubel, of New York. He sold the coal for $17,000,000



ANOTHER YOUNG PREXY

First business-trained president of University of California, world's biggest school, is Robert G. Sproul



LEAVES GOVERNMENT

Known to all flyers is E. P. Warner, recently chosen editor of *Aviation* and air counselor to McGraw-Hill



PROMOTES AIRCRAFT

Leighton Rogers, head of Aeronautics Trade Division, Commerce Department, boosts our aircraft abroad



SUCCEEDS LEGGE

When the head of International Harvester went to the Farm Board, H. F. Perkins became the new boss

and specialists. A specialist in sales headed the sales department; a specialist in production directed the factory; another specialist supervised advertising, and so on through all the subdivisions of business.

These various specialists formed a committee of advisers to the president, who also was subject to his board of directors. The company head, in a word, became a coordinator instead of an absolute czar. Each subdivision of business became, in effect, a business in itself. Responsibility, formerly in the hands of one or two men, was divided among many men. The smaller executives had to help shoulder the load to a greater degree than ever before.

Even laborers specialize

THIS change has extended down to the ordinary worker. Operations once performed by a single man are divided among a dozen men. One puts in the bolt, another tightens it, a third tests it. The object is to perfect each man in a single task.

Even in the professions specialization has become the order.

In every walk of modern life the man who can do one thing superbly well has taken precedence over the man who can do many things passingly well. Naturally, to get a job done as a whole, the specialists have had to come together in mass effort.

So, although new machines and new methods have led to the creation of a great variety of new jobs these jobs are of the specialized type. Specialization, in itself, has created new jobs in almost every field.

Efficiency has become the religion of business. As every religion must have its high priests, business was soon invaded by the efficiency engineers. Hot upon their heels followed the traffic engineer, the planning engineer with his graphs and charts, the personnel manager with his staff, the lighting expert, the ventilating expert, and so on. The psychologist was called in, the medical man, the dentist, the specialist in employe welfare work. Each new expert of course, had to have an office and assistants.

The host of "automatics" demanded new plants to house them; new corps of men to erect and service them; salesmen, demonstrators, executives to market them; operators. True, the "automatics" displaced a greater number of workers than they replaced, but their contribution of new jobs to the total was appreciable nevertheless. The new

(*Continued on page 110*)

A Congress of World Business

By Merle Thorpe



HENRY MILLER, WASHINGTON

THE presidency of the International Chamber of Commerce passed to M. Georges Theunis at the Fifth Congress of the Chamber, held at Amsterdam July 8-13. Born near Liege in 1873, M. Theunis has gained distinction as engineer, banker, economist and as a cabinet officer of Belgium

IN July 1,146 active business men from 46 countries left their desks—some of them foregoing well-earned vacations—to meet in Amsterdam where, for six days, they attended sessions of the Fifth Congress of the International Chamber of Commerce.

In the assemblage were such men as Thomas W. Lamont, of Morgan & Company; Sir Arthur Balfour, chairman, High Speed Steel Alloys, Ltd. of Great Britain; M. Etienne Clementel, former Minister of Commerce of France; Fr. von Siemens, chairman of the Board, Siemens-Halske Company, of Germany; Georges Theunis, director of the Banque Nationale de Belgique; Adolph Johr, director of the Swiss Credit Bank; H. J. Knottenbelt, former president of the Nederlandsche Reedersvereeniging, and G. Mylius, vice president of the Bank of Italy. Why did these men travel many miles to sit in sessions lasting from early morning until late at night?

What was the motive that brought them to Amsterdam?

I have attended four such international business meetings, and it is my belief that these men were drawn to Amsterdam in the hope that through discussion, face to face, with mutual forbearance, might come easier methods of barter and trade.

As I sat in the plenary session held in the large hall of the Colonial Institute, I thought:

"Trade should be a simple thing. You have something in excess of your needs and I have something in excess of my needs. You desire what I have and I desire what you have. It should be simple for you to exchange what you have for what I have. But it is not a simple thing; rather, there have been thrown up, literally, a thousand barriers which make it more and more difficult for this simple operation to take place.

The needless blockade

"I DO not mean tariffs but rather those unnecessary obstacles which government, and indeed, business itself, have created.

"John Jones, of Terre Haute, for example, has a bicycle. He or his friends want a cheese from Denmark. Lars Larsen in Denmark wants a bicycle. Jones and Larsen agree to trade. Jones crates his bicycle. His difficulties now begin.

"He becomes involved in rail and ship bills of lading. He must interpret 'f.o.b.' and 'c.i.f.' under Danish customs. He must deal with forwarding agents, shipowners and underwriters of foreign countries.

"When he takes his ship's bill of lading to his banker, the banker finds that the captain of the ship has written on the back that one of the slats of the crate is broken. The banker insists upon a letter of indemnity that will insure him against loss if the shipping company or the insurance company does not make good any damages to the bicycle while en route.

"Further difficulties are encountered. Does title pass when the bicycle lands on the domestic dock, or in midair on the crane, or when it reaches the deck of the ship; or does the seller hold title until it reaches the foreign dock, warehouse, or the sidewalk of Lars Larsen?

"Then there are questions of double taxation—irritating, burdensome, complicated formalities which render trade conditions uncertain and hazardous. This applies not only to John Jones, of Terre Haute, but to Lars Larsen who would ride on an American bicycle in return for his cake of cheese."

This, then, was why business men had gathered in Amsterdam—to see what could be done to eliminate obstacles to a freer exchange of goods.

Business men in small towns have similar meetings. When the question of a uniform closing of shops comes up it is easy for 12 or 15 merchants to agree to common action. You know, and I know, how easy it is!

It is easy for the business men of a state to meet and work out a program,

(*Continued on page 205*)

John Hancock, Merchant Prince

By ALBERT BUSHNELL HART

Professor Emeritus of Government, Harvard University

IT MIGHT fairly be said that a century and a half ago John Hancock's business was everybody's business. A crisis in the political affairs of his colony pushed the Massachusetts man of business into public life very much as Mellon has been catapulted into the maelstrom of politics in our time.

Millions of schoolboys have admired his majestic (though not invariable) penmanship, but they do not recognize it as the authoritative signature of a merchant magnate affixed to drafts and statements. They have been taught to look for it at the end of a facsimile of the Declaration of Independence.

Yet only a few persons know the commercial life of John Hancock, while thousands are aware only that he was deep in the controversy which culminated in the Boston Tea Party; that he was a delegate from Massachusetts to the Second Continental Congress, and sat as president of that body on the fateful day of Independence.

He was later the first elected governor of Massachusetts, and occupied that position by annual election in 11 of the 13 years between 1780 and his death in 1793. No man of his time in Massachusetts (except John Adams and Sam Adams) had so brilliant a public career and is so widely remembered as a Massachusetts statesman.

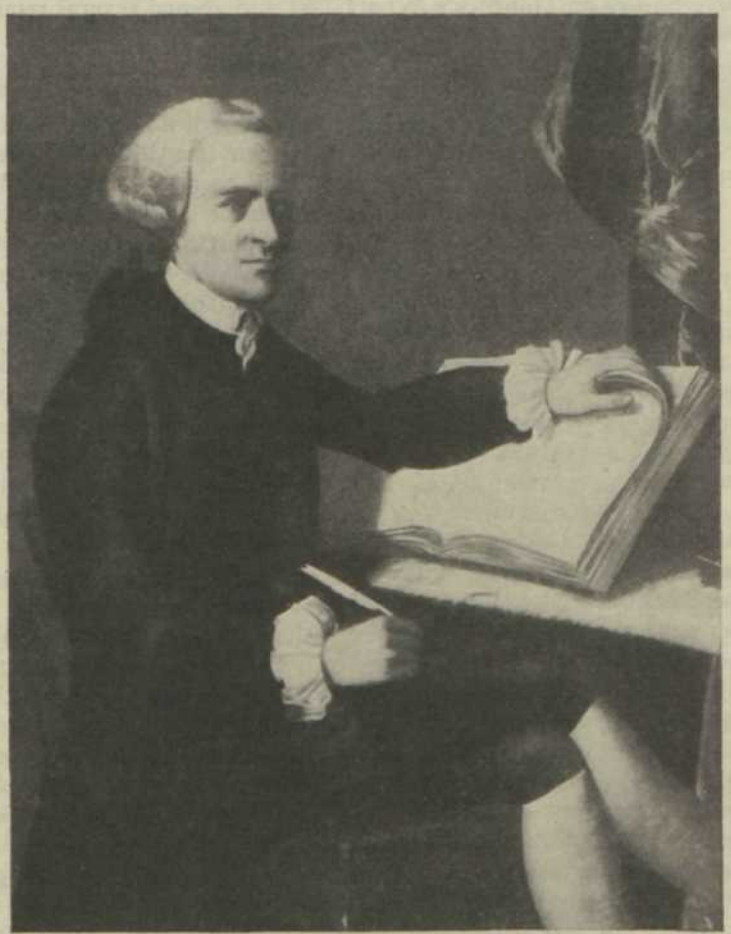
Notwithstanding this remarkable and honored career, John Hancock was quite as much a politician as a statesman, and he could have held his own with party managers of the crop of 1929. For example it is on contemporary record that when, though president of the state convention, he hesitated to give his approval to the federal constitution, he "intimated to the advocates for the adoption that he would appear in its favor if they would make it worth his while."

Was a good governor

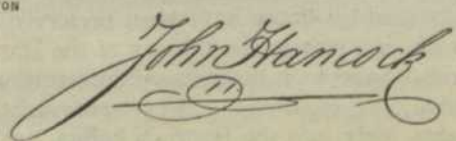
THIS cryptic utterance was defined to mean that Bowdoin, then governor of Massachusetts, should be pulled off, and Hancock again be elected. He did support the constitution which without such support would probably have failed of ratification; and at the next election he returned to the governorship.

This transaction has some of the attributes of modern politics and is not out of accord with the fact that he made a reasonably good governor, when most state governments were weak and hesitant. Nevertheless, in spite of his close connection with the bold and stirring events of the Revolution, his real genius was never for public affairs, but for business of a varied, exciting and profitable kind.

John Hancock for 30 years was the most successful, and probably the wealthiest, Boston merchant. He had one early advantage, he was a graduate of Harvard College, which, before the Revolution, had ceased to be simply a nursery for parsons. When his father, the Rev. John Hancock, entered on his parish register "John Hancock, my son, January 16, 1737" he doubtless destined that son for the college which he later entered, and of which he became an A. B. in 1754, when 17 years of age.



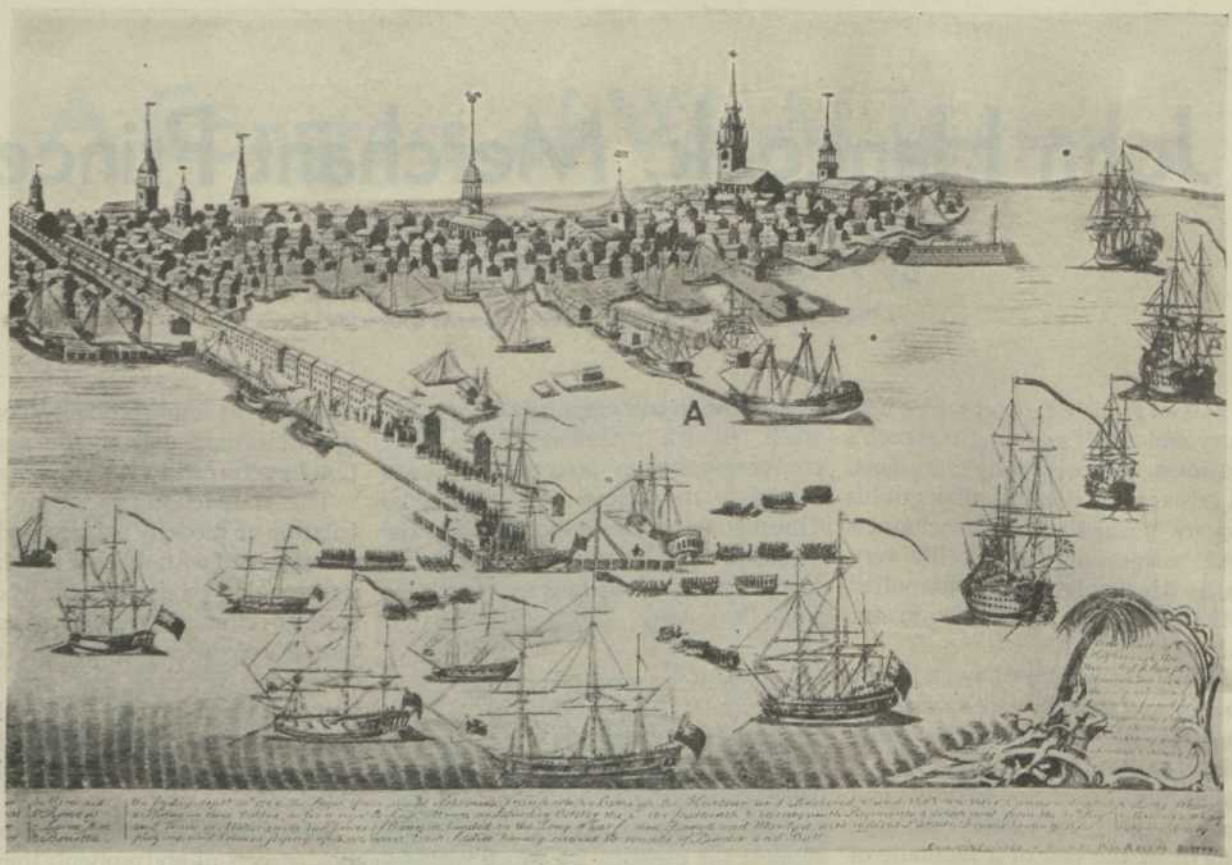
HALLIDAY PHOTO, BOSTON



For the next 20 years, however, he was drawn away from the academic life, having been provided by providence with an uncle, Thomas Hancock, who made him his partner and heir. That introduced him into the real aristocracy of New England.

Possessors of a title could still be found in New York and the southern colonies; and aristocratic and even titled gentlemen controlled the assemblies, particularly in the South.

In New England the



John Hancock for 30 years was the most successful Boston merchant. He had warehouses on Hancock's Wharf (A) and owned several retail stores

most influential element was the merchants, especially those of New Haven, Newport, Boston, Salem, Beverly and Newburyport.

Business grew every way

THE Hancock business was founded in 1717, when Thomas Hancock was apprenticed as a bookbinder; then he set up a bookbinding shop; then he bought out a bookseller with the immense stock of 3,000 volumes; then he imported books; then he exported rum, codfish and other necessaries; then he married the daughter of a wholesale dealer in books and other merchandise; then he took stock in a paper mill.

Long before John came under his mercantile wing he was engaged in a general export and import business. Likewise, he bought land on Beacon Hill, and built a magnificent mansion.

The next step was to own his own shipping and to make alliances with powerful firms in England. He had agents in the West Indies; in Bilbao. It was an easy step to issuing bills of exchange, a convenient species of banking.

Thus Thomas Hancock built up on the foundation of his own energy, probity, experience, confidence and initiative one of the largest and most profitable businesses in all the colonies. He died in 1764 at the age of 61. A few months earlier John Hancock had been admitted as a partner. His uncle made him the heir to the largest part of his estate, which was accounted at something like 70,000 pounds. That placed him in the front rank of the wealthy men of the period.

John Hancock at 27 was probably the richest man in his colony; and that wealth was not in lands like the great plantations of that time in the South, which were steadily diminishing in production.

It was well invested in buildings and ships and stocks of goods, and the magnificent Hancock mansion, with wall papers representing "peacocks, macoys, squirrels, monkeys, fruit and flowers."

Naturally the young merchant prince remarked, "We live pretty comfortably here on Beacon Hill," a habit followed for generations by Boston bluebloods.

At that time John Hancock was not yet in politics and he devoted himself to his business with great success. Considerable parts of the business records of his house have been preserved, and are now in the Library of the Harvard School of Business Administration. It is easy, therefore, to get an insight, not only into the Hancock habits, but into the methods of business of those times

The great southern planters of whom George Washington was the most systematic and kept the most careful records, shipped their surplus products to England and ordered goods to be sent back, often directly to their wharves, which were ultimately paid for by the shipments.

That was a happy-go-lucky and wasteful method. The planter was not very efficient on his own land, and put himself in the hands of agents overseas whom usually he had never seen.

Merchants came into the trade

IN CHARLESTON and some other southern ports a class of merchants arose making their own imports and paying in exports of the country's produce and timber; but they were not numerous nor remarkably wealthy. In Philadelphia, New York, New Haven, Providence and Boston, American merchants, enterprising immigrants, or more often born on the soil, set up firms of which John Hancock's was a type.

What were the raw materials and finished products for such traders? John Hancock could tell you all about it, for he was in the midst of it. The first necessity was to have a place of business.

The Hancocks began in a bookshop, but came to be owners of retail shops, wholesale premises, shipping offices, wharves, even shipyards. Hancock had warehouses on Hancock's Wharf in the North End of Boston. He owned, or had an interest in, several retail stores.

One of the lines of business of Thomas Hancock (and John Hancock after him) was to supply garrisons in Nova Scotia, and elsewhere, with provisions. There was a first-class row when the Hancock firm was accused (apparently with some truth) of shipping mouldy rations.

Sea gave many products

ON THE side of output, New England trade was deeply anchored in two staple and continuous products, fish and whales. With fish the Plymouth Colony paid up debts incurred in its founding. But fish had to be cured on shore, and must be salted. Here was an import and export trade at the outset.

The other great staple was whale products—whale oil and whalebone; for that sociable mammal abounded on the coast, and in the Revolutionary period could be taken by boats from the shore.

Until the development of the East India trade, the sea was the principal source of New England wealth. In the years before 1775 something like 50,000 tons of shipping and 7,000 men were employed in the cod fisheries; and the fishing port of Nantucket owned 150 vessels, averaging 100 tons. The annual output of the whale fishery was 45,000 barrels of sperm, 8,500 barrels of oil, and 7,500 pounds of bone.

Another staple export was "pot and pearl ashes," a by-product of the timber industry. Of course the product was not ashes but lyes concentrated into alkaline liquids. There was also a steady product of tar, pitch and barrel-staves.

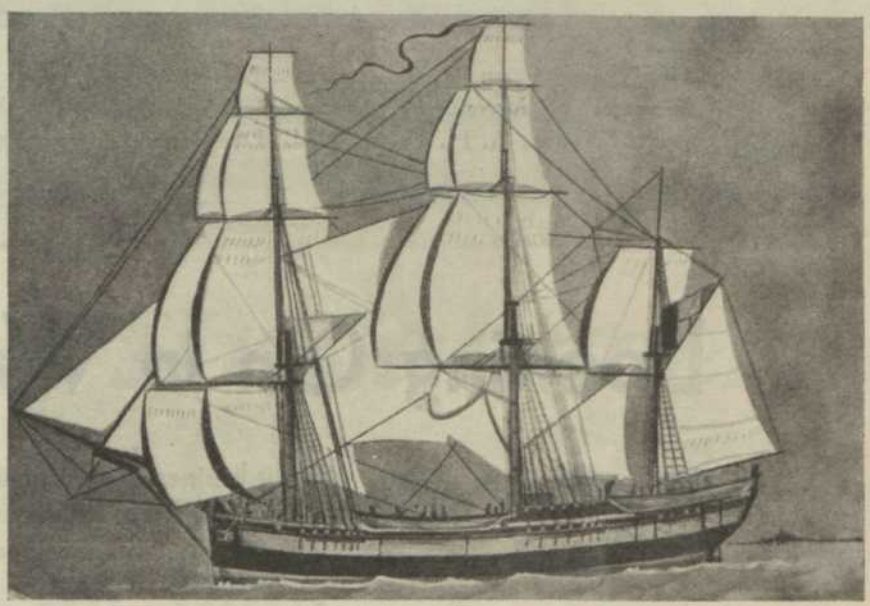
That is, the colony of Massachusetts had a regular surplus of products derived from the sea and from the forests. Another important export was the justly celebrated New England rum. The rivalry between the whale and the still was later phrased in two doggerel limericks.

"There was a young man in old Medford
Fell in love with a girl from New Bedford;
But she smelt so of oil
That the match, it did spoil,
With the sensitive youth from old Medford."

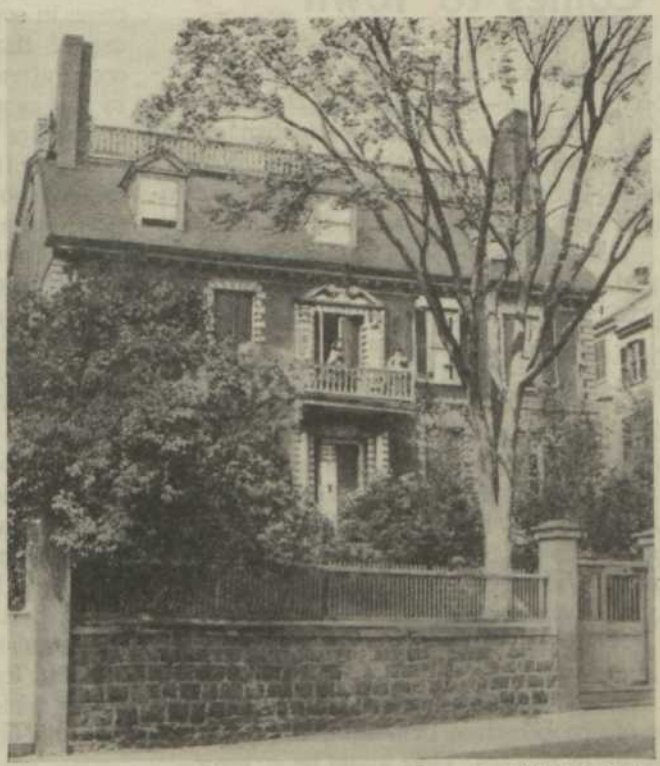
"There was a young man in New Bedford
Fell in love with a girl from old Medford;
But she smelt so of rum
He was quite overcome
And jilted the gal from old Medford."

When it came to imports, the Hancock firm had its choice out of all the world. It bought abroad, to resell, fabrics and dress goods, silks and cotton goods; hemp, which was raw material for cordage; foodstuffs, including salt pork and salt beef, butter, salt, sugar, cheese, olive oil, lemons, and the fateful tea. It bought hardware, especially nails. It bought "coals" as a gentlemanly fuel; it bought paint, pencils, bottles and pins. It bought gunpowder and a variety of wines.

The records of the firm show that the partners were not averse to purchases for their own use and for that of their wealthy friends such as lavender water and wigs, silk, cloths, books and magazines; pipes, watches, damasks, furniture and glassware; chariots and peacocks. The firm bought a variety of drinks, beer and Madeira, which was the fashionable drink, though champagne was not unknown. The Hancocks were long especially interested in the book trade.



The *Boston Packet* was one of several ships Hancock owned



HALLIDAY, BOSTON

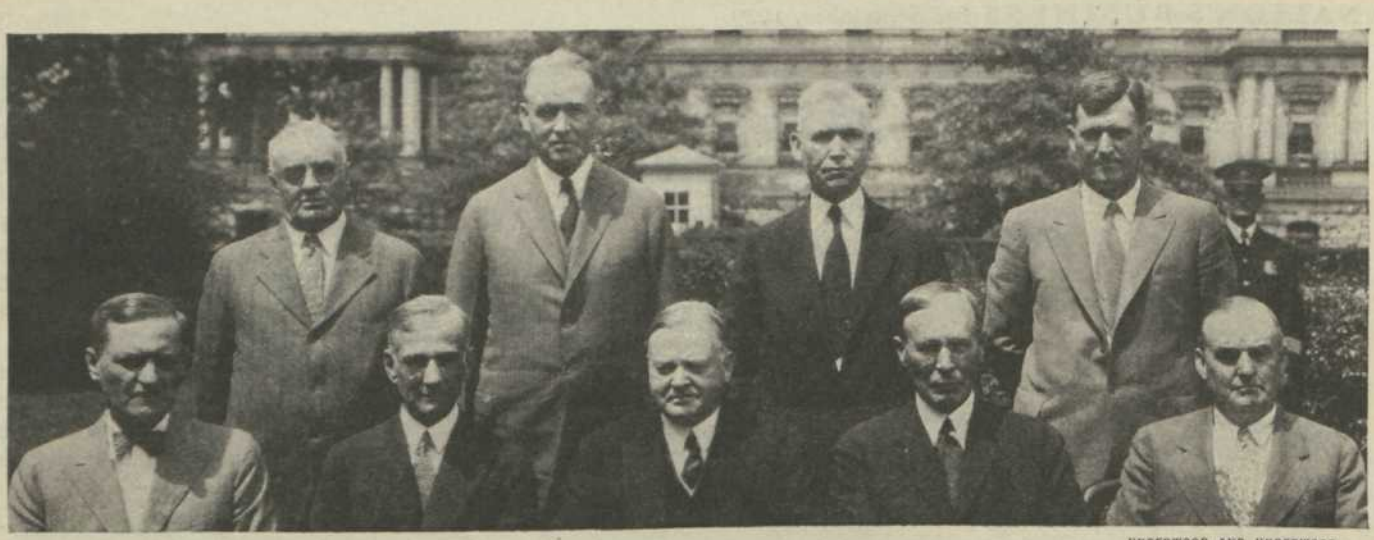
"We live pretty comfortably here," Hancock said in speaking of his Beacon Hill mansion

A romance of trade

THE variety and richness of these imports is well illustrated by a list published by the *Boston Post-Boy* in 1767:

Loaf Sugar, Cordage, Anchors, Coaches, Chaises and Carriages of all sorts, Horse Furniture, Men and Womens Hatts, Mens and Womens Apparel ready made, Household Furniture, Gloves, Mens and Womens Shoes, Sole Leather, Sheathing and Deck Nails, Gold and Silver and Thread Lace of all

(*Continued on page 224*)



UNDERWOOD AND UNDERWOOD

The Federal Farm Board assembles. Left to Right—James M. Stone, W. F. Schilling, Secretary of Agriculture Arthur M. Hyde, Charles S. Wilson, President Hoover, Carl Williams, A. H. Legge, C. E. Denman and C. C. Teague

★

Looking On in Washington

. . . . «My business in this state
Made me a looker on here in Vienna.»
—Vincentio in «Measure for Measure.»

The Farmer Comes to Town

THIS looker-on has been looking on a lot at farmers. He has been doing it without needing to leave Washington. In fact, he has been doing it without needing—much—to leave the plutocratic precincts of the Mayflower Hotel.

There the new Federal Farm Board has its temporary quarters; and there its farmer members, some of them, incline to have their personal habitations.

This observer observes, as a vast but accurately ascertained sociological fact, that palatial hotels no longer convey any intimidation or embarrassment whatsoever to the American yokel or hayseed or peasant. Why should they? Let us consider the case, for instance, of that eminent peasant, Mr. C. C. Teague.

♦

PEASANT Teague does his tilling of the earth in California. He is now a member of the Federal Farm Board at $12,000 a year and at, therefore, a great personal financial sacrifice. Mr. Teague has totally disregarded the efforts of successive Federal Administrations—and more especially of successive aggregations of malignant farmer-haters in the Federal Reserve Board—to reduce the American agricultural population to the social status and financial level of a European peasantry. If it were seemly to say so regarding a representative of an industry for which we all must weep—and be taxed—Mr. Teague is rich.

He has made money, much money, out of diligent cultivation of the *Juglans Regia*, which puts forth walnuts, and of the *Citrus Medica*, which puts forth oranges and lemons. He additionally has been president of the California Walnut Growers Association and of the California Fruit Growers Exchange. These are cooperatives. Hastily the reader might conclude that Mr. Teague's money has come more from running cooperatives than from running farms or ranches. That would be an error.

♦

MR. TEAGUE has served the California Walnut Growers Association and the California Fruit Growers Exchange without pay. Perhaps, his money has come in some part from an intelligent use of the principles of agricultural cooperative marketing but it has come to him as a grower, as a producer. For 30 years or so he has been the executive manager of a spacious agricultural undertaking known as the "Limoneira." It tends some 2,000 acres of walnuts, and oranges, and lemons. It markets them through the California Walnut Growers Association and the California Fruit Growers Exchange in accordance with the strictest cooperative views and practices. In Mr. Teague we see a highly successful agricultural business man and an absolutely convinced and devoted agricultural cooperator in one revolutionary combination which the business men of other industries may well thoughtfully consider. They may especially take note, with profit, of Mr. Teague's attitude toward a certain outstanding feature of the Farm Relief Law under which the new Federal Farm Board is organized.

♦

THE Farm Relief Law contemplates the creation of clearing-house associa-

(*Continued on page 98*)

for Economical Transportation

CHEVROLET



A 1½ Ton *Six-Cylinder* Truck *-with 4-Speed Transmission*

IN every line of business the demand for the new Chevrolet Six-Cylinder 1½ Ton Truck is increasing every day.

Here are provided, *in the price range of a four-cylinder truck*, the outstanding advantages of a great six-cylinder valve-in-head engine. It gives you more power—and, due to the greater flexibility of six-cylinder design, this increased power is immediately available. The motor "takes hold" the instant the accelerator is depressed—which not only makes it possible to get out of bad places before the load has a chance to "settle," but enables the driver to take advantage of every opening in traffic. Faster speeds are possible on the highways. And the motor is amazingly smooth—which makes driving more pleasant, and results in longer life for the entire truck.

for only **$545**

chassis only
f.o.b. factory-Flint, Mich.

Furthermore, the new Chevrolet 1½ Ton Truck is equipped with a four-speed transmission. In addition, it offers a full ball bearing steering mechanism; big, powerful, non-locking 4-wheel brakes; four sturdy, semi-elliptic shock absorber springs, and an extra heavy, extra long channel-steel frame, which permits the mounting of large bodies without frame extensions. And remember that this remarkable six-cylinder truck is not only available *in the price range of the four*—but it is just as economical to operate as a four-cylinder truck. See your Chevrolet dealer today!

Sedan Delivery $595 Light Delivery Chassis $400 1½ Ton Chassis with Cab $650

All prices f. o. b. factory, Flint, Michigan

CHEVROLET MOTOR COMPANY, DETROIT, MICH.
Division of General Motors Corporation

A SIX IN THE PRICE RANGE OF THE FOUR!



EWING GALLOWAY

The "used car problem" is bound to act as a brake on automobile production

The Fifty-Million Automobile Myth

By C. W. NASH

President, The Nash Motors Company

I HAVE heard time and again that the number of automobiles will be increased two-fold in the next 20 years.

It is always hard to check up on prophets, but in this case we should try to get them back to earth.

Frankly, I believe it would be humanly impossible to operate 50 million automobiles upon our highways in 1950.

The problem of doubling the number of motor vehicles now in use does not rest upon the capacity of the factories or the purchasing power of the people, but rather upon provision of the space essential to effective operation.

It seems to me that one needs only to study the congestion now existing in the streets of any large city to understand the impossibility of doubling the number of automobiles.

In any city—New York, Chicago, Detroit, Cleveland, Philadelphia, Boston, Pittsburgh, or Washington—you will find that during many hours of the day it is almost impossible to make headway driving a car. Now suppose that 20 years hence twice the present number should be trying to drive around. The impossibility of any such eventuality will be readily apparent.

It is reasonable to ask, I know, what to expect in the way of relief from such conditions. My own opinion is that cities such as New York and Chicago will be compelled to have double-decked streets, built like elevated railroads, to take care of a large part of the through traffic. The next move naturally will have to involve the widening of arterial highways leading into important cities. My judgment is that this work will progress rapidly during the next decade.

Checks on production

I DO not believe that the number of automobiles to be built in this country is going to be controlled entirely by the buying power of the public, but more by the ability of owners to operate cars when they once have purchased them.

Of course, many other factors enter into the restriction of automobile production. The "used car problem" is bound to act as a brake on production. Automobiles are being built so much better than they were a few years ago that people are not going to be influenced so easily to "trade in" cars that are one and two years old. Also, the small allowances made for used cars are going to cause owners to reflect.

But the chief check upon the production of automobiles today is the marketing. I think it is evident that there are facilities already created for manufacturing a far greater number of automobiles per year than the public is able to consume.

Each executive who heads a well-managed automobile manufacturing plant naturally is compelled to make a mental survey of general conditions and to a great extent form his own conclusions as to how many automobiles he reasonably can expect to be consumed within the year.

It is a fact, I know, that we often read at the beginning of the year that such-and-such companies are going to make so many automobiles within the year. Personally, I have never made such an estimate on behalf of my company. My problem, and every other automobile manufacturer's problem, is the merchandising. We all know that we are practically in position to make all the automobiles we can sell; so our job more especially is to strengthen our selling organizations.

TRUSCON



1 World's largest manufacturer of steel building products.

2 Every steel product for any kind of permanent construction.

3 Steel buildings of various types and sizes from stock units.

4 Prompt delivery from Truscon warehouses and from dealers' stocks.

5 Nation-wide sales and engineering organization for personal service.

THE individual worker of old has been supplanted by the mass production methods of today. And with this change, the flimsy workshop and makeshift factory have given way to the great modern industrial plant with its permanence and efficiency. Truscon has pioneered and made many outstanding contributions in this noteworthy development. Accepted as a central source for every steel building product and for advanced information on all matters relating to permanent building, Truscon has been serving architects, contractors and owners for over 25 years. Truscon's nation-wide cooperative service, extending from original plan to finished structure, Truscon's immense manufacturing facilities and Truscon's warehouse system in principal cities have made Truscon the dominant establishment of its kind in the world.

TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO

Engineering and Sales Offices in Principal Cities. Main Plant in Youngstown. Factories in Cleveland, Detroit, Los Angeles and Japan. The Truscon Laboratories, Detroit. Foreign Trade Division, New York; Truscon Steel Company of Canada, Limited, Walkerville, Ont.

MODERN STEEL PRODUCTS FOR EVERY TYPE OF MODERN CONSTRUCTION

Complete Lines include all Types of Steel Windows and Operators for Steel Windows—All Types of Steel Doors and Frames—Standard Steel Buildings—Steeldeck Roofs, insulated and waterproofed—Metal Lath and Hy-Rib—Steel Joists—Reinforcing Steel—Road Reinforcement—Steel Poles and Towers—Pressed Steel—Steel Boxes and Platforms—Waterproofing—Maintenance Products



"Thank God! At last I'll be able to read and write."

HOW would you feel if you could not read the news of the world? No newspapers, magazines, books, letters, not even a danger sign or a warning notice?

Somewhere near you is a grown person groping in the dark, in many ways helpless as a child, because he cannot read or write. You can bring sunlight into his darkened life. More than that, you may be the means of bringing him better health—even of saving his life.

Today he cannot read messages on disease prevention. He does not know, unless someone tells him, the important rules of health or how to keep his family from having diphtheria, smallpox, or typhoid fever. These and other preventable diseases often make illiterate localities their breeding places and thus endanger the health of the educated, despite all their precautions.

Perhaps you share the mistaken belief that it is impossible to teach grown-up illiterates how to read and write and that they are content to be illiterate.

Get the confidence of an illiterate and ask him if he would like to be able to read and write. Tell him he can learn to write his name in 30 minutes and learn to read in a few months. In all probability his eager response will amaze you.



It may surprise you to learn that the majority of illiterate persons in the United States are native born—more than three million illiterate Americans. Many of them have never had a chance to learn and do not know where to look for instruction.

Illiterates are not hard to find—a servant, a farmhand, an employee in your own or your neighbor's shop, a laundress, a deliveryman, a laborer in your neighborhood.

There are more than 5,000,000 men and women in the United States who cannot read health messages concerning sanitation and prevention of disease—more than 400,000 of them are in the State of New York, more than 300,000 in Pennsylvania, about 150,000 in Massachusetts. You can find them in every State of the Union—in cities, in towns and in country districts.

Will you give someone a present that he would not exchange for hundreds of dollars—the ability to read and write—a present which costs you nothing?

Find *your* illiterate. If you will help him to learn to read and write, the Metropolitan Life Insurance Company will send you, free of cost, grooved writing pads and illustrated lessons for beginners.

Ask for Booklet 99-U.

METROPOLITAN LIFE INSURANCE COMPANY

FREDERICK H. ECKER, PRESIDENT — ONE MADISON AVE., NEW YORK, N. Y.



Advertising pictures done by a good artist make a board of directors forget the hard facts of business for a few moments and fall under the magic spell of art

Advertising Has Some Foot Rules

By DUANE D. JONES

ILLUSTRATIONS BY ALBERT DORNE

IN JUNE, 1928, C. D. Garretson, president of the Electric Hose and Rubber Company, complained in NATION'S BUSINESS that the advertiser had no way to tell if his campaign was effective.

Now Mr. Jones, account executive with a Los Angeles advertising agency, explains the measurements devised to test the pulling power of advertising

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THE OTHER day I attended a meeting, going with an artist who had some pictures which he wished to show a board of directors.

His pictures were advertising illustrations, full of color, and human quality. Probably you know that many of the originals for advertising pictures such as you pass in review in the magazines are oil paintings several times the size of the printed picture. Such pictures are very appealing, even to a board of directors. When they are done by a good artist—and this man was one of the best—directors forget the hard facts of business for a few moments, relax, lower their voices, and fall under the magic spell of artistic things.

Well, that happened. Then it came my turn to do my stuff.

All I had was a set of charts, showing the number of inquiries this concern's advertising had brought in last year.

In a little while,. they were all business again! The fairy godmother turned us all back into mice after letting us look into fairyland for ten minutes.

My charts showed how many persons last year's advertising had moved to write their names and addresses on coupons and send them to the company. They also showed how many so moved had become customers.

What makes you and me behave like customers? We pick up a magazine and run through the pages, glancing at the advertisements so briefly that if a corporation's directors, sanctioning advertising at the rate of $5,000 a page, could see how small an interval passed before we turned from their page to a competitor's it would make them blue.

If the cost of advertising space in the most expensive magazine were turned into dollars per square inch, each inch of a page advertisement would have four golden double eagles piled on it—$80.

When you and I look at this page for maybe three seconds, and pass on with a yawn, it seems that advertising is the greatest gambling game in the world.

However, do not be discouraged, gentlemen of the board!

Your results will come. They are now measurable by certain foot rules that are

beginning to make advertising almost as exact as life insurance.

At first, there was considerable guesswork in life insurance. Then actuaries worked out the laws of averages by which it is possible to tell within very narrow limits how many persons in a hundred thousand will survive over given periods. The same laws of averages are being applied to advertising results with greater and greater accuracy. In a few years the advertising actuary should be able to appraise a set of advertisements and tell approximately how many readers will respond by clipping the coupon and buying the goods.

Average replies

IN OTHER words, how many will behave like customers?

As the life insurance actuary would say of so many policyholders passing a certain medical test, "The expectancy of life is so-and-so," so the advertising actuary will grade a series of full-page color advertisements.

"Your expectancy of replies and sales should be so-and-so. But these three advertisements in the set have such-and-such physical weaknesses that may lower your results. Modify them along lines that I will indicate and you can increase your expectancy."

Some of the basic laws already determined make it possible to do this. As we learn more about the behavior of people in response to advertising we can make closer estimates.

By analyzing three million replies to advertising, Daniel Starch, the Harvard psychologist, has found that the number of readers who will write for a free booklet or send ten cents for a sample bears a definite relation to the number of people who will buy the product without writing in. But any board of directors watching the individual reader would be terribly disappointed because only about 200 to 250 out of every 100,000 write in!

That amounts to picking about a thousand customers out of one day's travel in the Hudson River tubes, and there is nothing on earth but advertising which will do such a patient needle-in-haystack job.

Things can be made easy and attractive to the public, with correspondingly better results. For example, more persons will write if a coupon is provided than if the advertiser simply says, "Write for further information."

More persons will write if the coupon offers something free, like a booklet or a sample.

A number of persons will write and send money if they are offered something they want, such as a recipe book or a fruit knife, but the number of responses falls off as the amount of money increases.



We boast that advertising does not influence us—nevertheless it does

Then, it has been found that 14 per cent more persons will answer an advertisement on a right-hand page than respond to a left-hand page. This seems to be a matter of making things handy for the customers, too.

Either the eye falls more easily on a right-hand page, or there is some unknown relation between right-hand advertisements and right-handed people. It would be scientifically interesting to try this with a hundred thousand left-handed people.

Advertising is called "salesmanship in print."

Even the best salesman has poor days, so no capable sales manager judges his men by anything but their weekly and monthly averages.

Advertisements have poor days, too, and it is a mistake to judge them except on averages. If the advertiser is disappointed because he doesn't receive a lot of inquiries the first few days after his announcement appears in a weekly magazine, he is forgetting the law of averages and worrying needlessly.

The "life" of an advertisement bears some relation to the "seven ages of man," because it runs in a scheme of sevens. In the first seven days after a weekly magazine appears, half the inquiries will be received. At the end of the seventh week, with the number steadily decreasing, 98 per cent of all the inquiries that may be expected from that advertisement will have arrived.

With a monthly magazine, the same rule holds, except that the life extends to seven months. You will find that you, yourself, discard old weekly magazines quicker than the monthlies.

Sporadic inquiries may come from advertisements several years after they appear. One humorous instance was that of a man who saw a tailor's advertisement in a five-year-old magazine which he had taken up with a carpet. He sent a check for a suit. The tailor was still in business and started to make the clothes but went bankrupt before the suit was finished. The belated inquirer's money and suit were both tied up in receivership. The magazine publisher was appealed to, and cut the legal knot by sending the subscriber a check.

However, these are the exceptions and oddities of advertising. Such incidents are frequently cited to disprove the operation of the laws of averages, but they prove nothing. The further we go in obtaining exact knowledge of advertising, the more certain it is that we have here a real force which works on all of us impartially even though we believe we are unaffected.

Advertising gives information

IN FACT, we like to think that we pay no attention to advertising but advertising day by day is giving us information upon which we make decisions affecting probably 75 per cent of all the money we spend. We are led by advertising to behave as customers. But we would be burned at the stake before we admitted that we were influenced by anything but our own intelligence.

As customers, we behave in different ways toward two great groups of merchandise and service.

These might be called the *Things We Want*, and the *Things We Don't Want*. If we expect to get our own trade from

$5,383.38 SAVED IN SIXTEEN MONTHS

That's what Pontiac quality did for this company in repair costs alone*



A large eastern concern has a fleet of 53 salesmen's automobiles, 36 of which are Pontiacs. The total mileage of this fleet for the 16-month period from January 1, 1928, to April 30, 1929, was 867,142 miles. Of this total the Pontiacs did 672,897 miles or an average of 18,691 miles, per car. The other 17 cars, of different makes, practically all in the same or lower price classes, totaled 194,245 miles, or an average of only 11,426 miles per car.

Accurate records show that despite the far greater mileage recorded by the Pontiacs, their repair costs averaged 8/10 of a cent per mile less than those of the other makes of cars in the fleet—*a saving of $5,383.38 on the total Pontiac mileage.*

Add to this figure the money value of Pontiac's *extra time on the road*—time which other cars waste in repair shops—and you begin to appreciate the true meaning of the quality that's in Pontiac Sixes—why they are so popular for business use.

Write to the Fleet Department at the factory for full information about the still greater economies provided by the Pontiac Big Six—the remarkable durability of their bodies by Fisher—their many advanced engine features leading to longer life and low cost performance. We will also send you our Fleet Owners' Plan and the Fleet Executives' Experience Book—both of the greatest value to anyone interested in reducing the cost of selling and distribution.

OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

**Name, address and free information furnished on request.*

Pontiac Big Six, $745 to $895, f. o. b. Pontiac, Mich., plus delivery charges. Bumpers, spring covers and Lovejoy shock absorbers regular equipment at slight extra cost. General Motors Time Payment Plan available at minimum rate.

* * *

Consider the delivered price as well as the list price when comparing automobile values . . . Oakland-Pontiac delivered prices include only reasonable charges for handling and for financing when the Time Payment Plan is used.

PONTIAC BIG SIX

PRODUCT OF GENERAL MOTORS

$745

COUPE

f. o. b. Pontiac, Michigan

ourselves, as customers, these two groups must be advertised in different ways.

We all want automobiles and radio sets, and are beginning to want airplanes.

But we do not want corn cures, bug poison or shorthand lessons.

Because we want a big blue "eight," we are willing to read about it, and let the salesman-in-print take us for an imaginary ride. We like to step into the dream he prepares for us, and feel the power and speed and smoothness of that car, and sink back into its luxurious upholstery.

When they already want it

ONCE when I was an apprentice to this trade of selling by printed words I had some piano advertisements to write. How I worked to weave a spell which would make readers want that piano!

"My boy, you are wasting your time!" said a veteran copy man. "You don't have to teach people to want pianos. They want pianos already. Your job is to make them want this particular piano by showing them how good it is, how they are going to enjoy its tone and appearance, and how the neighbors are going to be impressed by it."

We are generally ready to read about the things we want even if we have no immediate prospect of attaining them. We read to see what is in the market; we look at pictures, and we "window-shop" in the advertisements.

When it is possible to attain our wish, we read more, and when it is dead certain we are going to get those things we cannot find enough printed matter about them.

It is because we behave this way that large advertisements are published, full of pictures and color, for the things people want. If it is a big series of advertisements, and it appears during some critical season of the year, you will almost certainly find that the article advertised is of this class—if the advertiser knows how customers behave.

But the things that people do not want, but must have, like ant powder when the ants get in the house and shorthand lessons when it is necessary to find a job, are advertised in small space—and all the time!

Nobody reads those advertisements in pleasurable anticipation. Until we are driven to buy these things, we want to shut them out of our lives. But we do not know when we may need them. If the emergency arises, then we turn to the paper, saying, "Where is that shorthand school I've seen advertised so much? And the shorthand school must be there when we look for it.

Here is another queer kink we have in our natures—we will not spend much money for preventives, but we spend freely for cures.

Every automobilist knows that almost any time he may need a towing chain. Towing chains are cheap, they go into the tool box, take up little room, and are priceless when you need them.

Well, a towing chain is a preventive. To sell it, you must lead the customer to look ahead, and provide for a future emergency. If you think it is easy to do, try selling towing chains by advertising! These articles are usually sold as part of a "line" of motor accessories, along with things that people really want.

But if any automobilist, anywhere, is caught in the mud, and a towing chain is absolutely necessary to get his car back on the road, then it becomes a cure, and is easily sold, at almost any price. Even then, it cannot be sold through advertising, but becomes a personal salesmanship proposition.

A cure for anything that afflicts people, either in their health, or pocketbooks, or prospects in life, requires little urging. The customer is on the lookout for everything that promises relief.

Often, the question has been debated, "Is advertising an art—or a science?"

It seems to be both, an art in its picture and language appeal, and a science in the way we can measure its results through the behavior of people and the laws of averages.

Those who regard advertising as an art attach great importance to the pictures and the attraction of headlines.

Two seconds can count

THESE *are* important. The color the artist puts into his picture, the humanness of his subject, the harmonious arrangement of picture and text can make a lot of difference when we flip the pages of a magazine. A good advertisement as art can make us linger to read.

Headlines are important. The picture of a pretty girl, in a beauty advertisement, with the single word "Irre-

(*Continued on page 130*)



We like to read about things we want and, if we know we can have them, we can't find enough printed matter about them

Burroughs



Accounting Machine

The only accounting machine that multiplies directly, prints results and totals by a single key depression, typewrites, adds, subtracts, accumulates totals and posts several related records in one operation.

Call the local Burroughs office for a demonstration of this new Accounting Machine.

BURROUGHS ADDING MACHINE COMPANY
6239 SECOND BOULEVARD, DETROIT, MICH.

ADDING · BOOKKEEPING · CALCULATING AND BILLING MACHINES

When writing to BURROUGHS ADDING MACHINE COMPANY *please mention Nation's Business*



SCHUTZ, WASHINGTON

Orchestras must fit perfectly into their surroundings, wherever they may be

How We've Set Business to Music

By MEYER DAVIS



STARTING as a «wonder boy» violinist, Meyer Davis, seen here conferring with one of his younger executives, was leading his own orchestra at 18. Now he is the head of the country's largest «chain» of orchestras

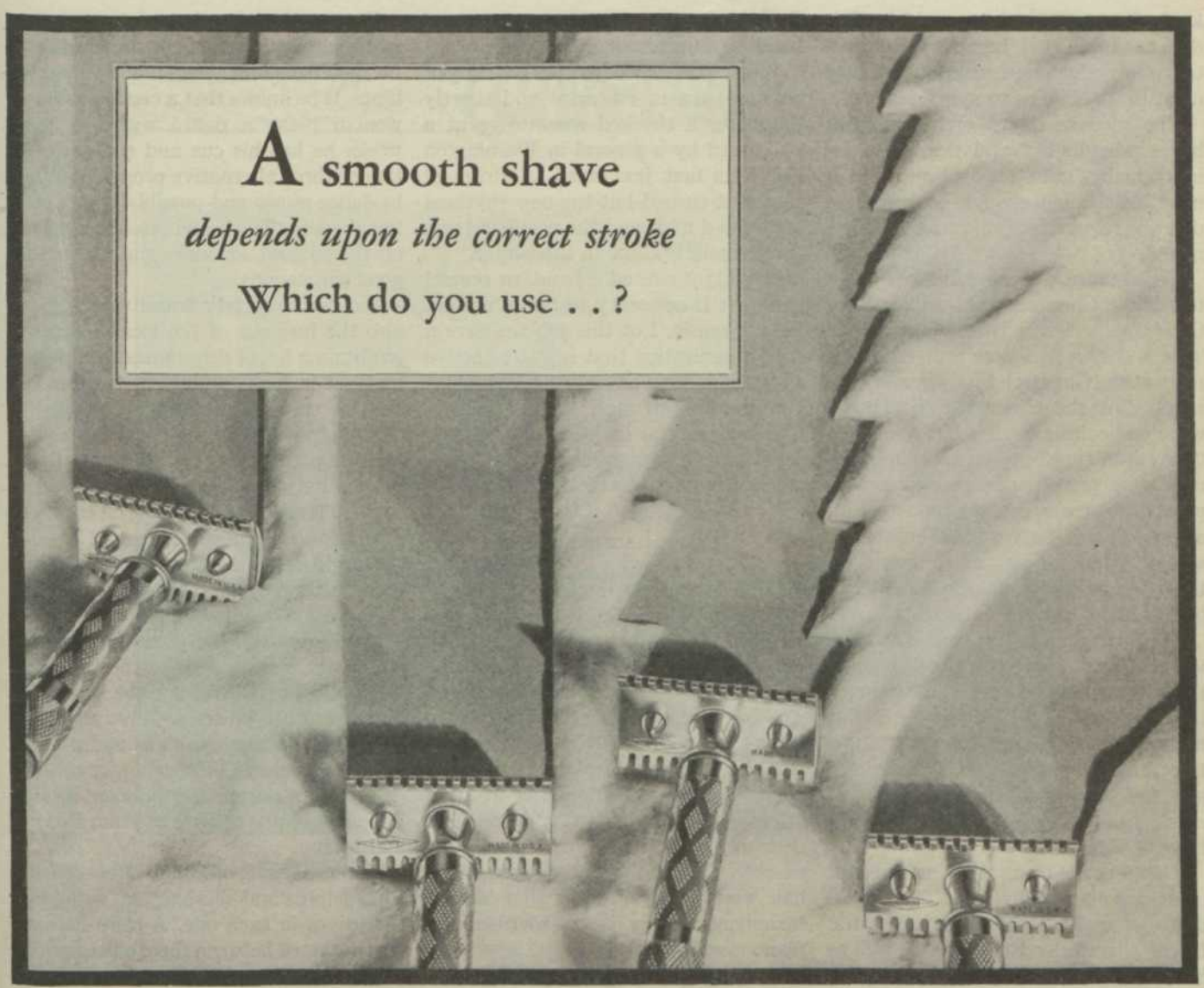
WE ARE quantity producers and our product is music. That is a blunt and commercial statement. It may offend certain sensitive people who look on music as purely artistic and outside the mundane realm of chain stores and balance sheets.

However, it is the truth and we are not ashamed of it. We started with one small orchestra. Now we have 119 and we sell them to the public just as the automobile builder sells new cars—by having the right products and putting them in the proper market. Sound business principles are as responsible for this growth as satisfactory performance.

Music is a commodity produced by work—as anyone will tell you who has ever watched a rehearsal. Like any similar commodity, it has its commercial problems of production, distribution and salesmanship. By applying business principles to music we have improved our product.

Art and the practical are not strange terriers—they are linked so closely as to become almost one in every successful concert, dance program or recital. Certainly every good orchestra must be an artistically competent unit, but that isn't enough. Members of an orchestra must be meticulously dressed, their demeanor must be dignified and they must make the intermissions between numbers brief. Such things have nothing to do with the quality of the music, but many otherwise good orchestras have gone on the rocks because of lapses in these respects.

We are bidding for engagements in the best hotels and for the finest social functions. An orchestra playing in such surroundings must not only be excellent from the musical standpoint but it must fit into the picture perfectly. There is no excuse for an organization accustomed to assembling orchestras presenting anything but a smooth, polished unit properly fitted for the



EIGHT out of ten American men shave with a Gillette Razor, and probably not more than half of them use the correct diagonal stroke shown at the extreme left.

But they all judge a shave on its face value, and they find the value *there*, in every Gillette Blade, no matter what stroke they happen to use. Gillette has put it there — designed the blade to meet all possible changing conditions.

In the past ten years the Gillette plant has invested $12,000,000 in blade improvements alone. Today the work is done by amazingly skilful machines—adjusted to one ten-thousandth of an inch. And the product of these machines is tested and re-tested by a long line of inspectors who get a bonus for every blade they discard.

Tomorrow morning slip a fresh Gillette Blade into its holder. Lather well and use the correct diagonal stroke. Let the world's best blade in the world's best razor give you the best of all possible shaves. Gillette Safety Razor Co., Boston, U. S. A.



THE only individual in history, ancient or modern, whose picture and signature are found in every city and town, in every country in the world, is King C. Gillette.

This picture and signature are universal sign-language for a perfect shave.

Gillette

Gillette

kind of engagement it has to play. This does not mean that, because our orchestras are under one management, they must be as alike as so many peas.

The modern dance orchestra must have individuality and flexibility. Its individuality gains it popularity, but it must be flexible enough to meet the differing requirements of various engagements.

For instance, one of our feature orchestras is the Chantecler Ensemble at the Club Chantecler in Washington, D. C. This is only a five-piece unit, since the room at the Chantecler is comparatively small. But the Chantecler Ensemble, which specializes in what we term "European type" music, is often in demand for private parties and a five-piece orchestra is entirely too small for a large dance. So we have built up a special group of ten extra musicians that can be added to the Chantecler orchestra for private engagements.

Most of these extra musicians are violinists, viola players and cellists, and thus the emphasis is kept on the stringed instrument. If we added a similar number of saxaphone players or trumpeters the entire effect would be ruined and the bright, sophisticated type of music would be changed into a mere blare of jazz.

This does not mean that you can shift musicians about willy-nilly. That would destroy the effectiveness of an orchestra. In the Chantecler Ensemble, as well as in others where we use the same principle, we made plans for the change of its size, selected the additional musicians, and rehearsed them until we had an orchestra of distinctive quality that ranged from five to 15 musicians and which varied in the volume it produced but not in the character of its music.

There are styles in orchestras

IN ADDITION to being flexible the orchestra must be adaptable to the current mode. Styles in music change from year to year and it is necessary to follow the fashion or, better still, to set it. The new trick for the year may not necessarily be in the type of music. It may lie in some special technique of presentation. We all remember that a year or two ago the master of ceremonies first began to figure on the floor at dance resorts, and it became the practice to call out talented members of the orchestra for specialty numbers, soft-shoe dances, songs and the like.

About 12 years ago we heard of the amazing hot-rhythmed syncopation emanating from San Francisco's Barbary Coast. I made a special trip to San Francisco to study this new way of handling music.

When I returned to the East I put an orchestra in rehearsal and shortly thereafter a shocked assemblage at a ball given by a general in Washington heard its first jazz band. A storm of comment ensued but the new rhythms had scored a hit and the new band was booked solidly through the winter.

Having organized a band, or several bands, it is necessary to find a market for the music. For this job we have a sales organization that is just as active as that handling any other commodity.

The selling of music and orchestras falls into several divisions. First come orchestras for theaters and hotels. These are sold by the season.

It's an harassing job

WHEN a contract for this type of engagement is closed, an individual secretary is assigned to keep check on the general quality of the music and the performance of the individual players. The constant checking on an orchestra is no small job. It is the reason hotels would rather get their orchestras from a first-class organization that assumes all responsibility than to try to assemble their own orchestra. Many a good hotel executive has permanently whitened his hair worrying over where that blessed saxaphone player is or whether the piano needs tuning.

But while salesmanship is needed only once a year in the placing of orchestras in seasonal hotel or theater engagements the same persistent business-getting is required every day in the year to make engagements to play at society functions. These engagements constitute a desirable and important part of the orchestra business. Practically every night during the social season in any major city there are several large dances or balls. The best of music is required and there is plenty of money to pay for it.

Each of our orchestra managers maps out systematic plans to get the cream of this society business. Planning must begin early in the summer. Naturally the major events of the social season, such as charity balls and assembly balls, are chartered many months in advance but society columns must be watched sharply for all other possible developments.

When Mrs. Astorbilt returns to the city in the fall, she very soon hears from our local office.

Usually the message takes the form of a polite reminder that we are ready to serve her with the newest and smartest forms of dance music.

Through the society columns the manager also learns of events scheduled for the future and gleans many valuable hints. If he knows that a certain society woman plans a dance within a few weeks he has his cue and can present two or three alternative propositions as to dance music and possibly added entertainment. The keen hostess is always on the lookout for ideas and welcomes good suggestions.

Before the society season opens it is also the business of the local manager to obtain a list of debutantes so that he may get in touch with their families as soon as they return to the city. Each debutante will need music for her coming out party, and it is probable that her family will also give several dances for her. These functions all spell engagements to the orchestra manager.

Since American society is ever on the move, it is necessary for the orchestra organization to follow its peregrinations. We inaugurated this policy years ago when we organized an orchestra and took it to Bar Harbor for the summer. Since then our offices are always to be found in the smarter summer and winter resorts of society. Newport is the center of activities during the summer, while winter headquarters are in Palm Beach and Miami.

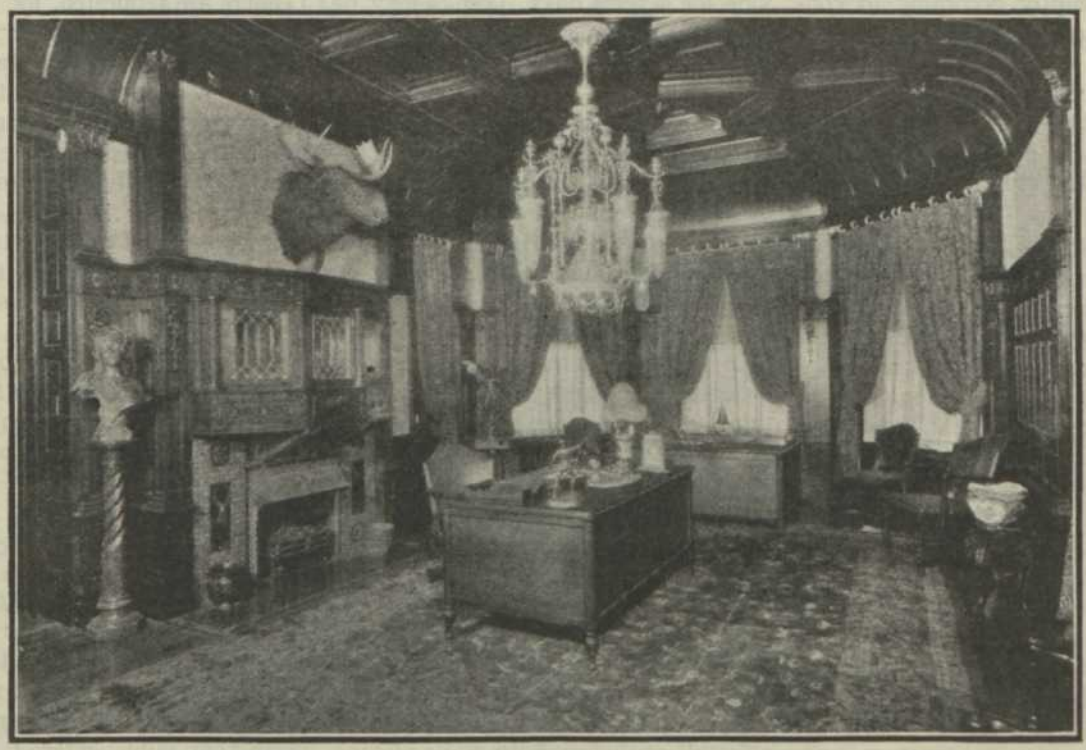
We also have offices in New York, Philadelphia and Washington, with key executives in each one. A close liaison is maintained between these offices, each aiding the other when possible in finding engagements and solving other problems.

These executives, as well as the managers of our various orchestras, must combine business ability with intelligence and tact. Our employes are musicians and there is no need in arguing the fact that musicians are temperamental. I may say this with some assurance because I am myself a musician. Nor is a harried hostess always as calm as might be. Qualities of watchfulness and a knack of handling people are needed to avoid unpleasantness.

Use best musicians only

THE Musician's Union is one of the strongest in the country and our organization has always recognized this and worked with the Union. But, though our musicians are highly paid and well treated, this implies no relaxation in requirements. Our standards are stringent and high. If they are not met the only answer is release from the job. But there is no malice in the matter. Later on the employe may be reengaged. Very often thereafter he will be on his best

A CLEMCO DESK



A "CLEMCO" Berkshire Suite in the office of Mr. Charles S. Bair, Philadelphia, Pa. Installation made by Flint & Horner Company, Inc., New York City.

POISE

YOUR office is your background. It is imperative that it be well balanced, harmonious and impressive — generating Poise.

A "CLEMCO" Fine Office Suite provides the background which creates poise that results in clear thinking, constructive planning and rapid transaction of business. It leaves an indelible impression of sound judgment and success.

We will mail you "Pointers In Planning An Office" and Floor Plan Material when requested on your letterhead.

THE CLEMETSEN CO., 3432 Division Street, Chicago, Illinois

Nation-wide Service Through the Better Office Furniture Representatives

A CLEMCO DESK

This—Your Insurance

SEYMOUR

When writing to THE CLEMETSEN CO. please mention Nation's Business

behavior and make good decisively or at least do very well.

But when difficulties arise no one knows it except the orchestra manager and perhaps a few of the musicians. The hotel or theater manager can go along serenely knowing that his music will be provided promptly according to contract no matter what happens.

He may be told that a member of the orchestra is sick or taking an extra evening off but in his place will be another equally competent man and there will not be a ripple in the program.

Scientific management

THIS is made possible through our understudy system. It is the duty of each orchestra manager to keep strict tab on his men and also to maintain a list of good emergency men. These extra musicians are not chosen haphazardly. They are well rehearsed, both individually and with the orchestra. Some even are selected with a view to duplicating the musical mannerisms of different orchestra members.

A scientific business system has been worked out for the administration of our orchestras. There is a variety of forms on which orchestra managers are required to enter payrolls, expenses, time put in on various engagements and similar information. It is possible to check on an orchestra's earning power and expenses almost instantly.

We have also worked out a written code to guide our managers, directors and musicians. This code is bound in book form and carries the fruit of years of experience.

The first part of the book is given over to instructions for the secretary-managers of each branch office, another third to instructions for musicians, and the last section to directions for leaders of orchestras.

Both ethics and practical business are served in a group of admonitions to managers which read:

"Acquaint yourself thoroughly with local conditions.

"Never criticise unfavorably the work of a competitor. We seek to obtain business through merit.

"Our performance is our advertisement. The more satisfactory it is, the greater pulling power it becomes. The more business we do the larger advertisement we have.

"Cooperate with musicians. Hold their good will and respect.

"Have patience in serving our patrons. They are our means of livelihood and must be dealt with in the manner most pleasing to them."

The care the manager-secretary is expected to extend to every detail of service is also seen in the paragraph of directions reading: "When musicians leave for a season's engagement, they should take with them in their handbags sufficient clothes and music to provide for several days. Trunks may be delayed. Instruments should always be carried personally, never expressed."

Such matters as these are not left with the individual musician alone. The manager is supposed to check on all details so that misadventures may be reduced to the minimum. He is expected to know where his musicians are, what they are doing, and that they are going to be on the job as right as their own fiddles.

Instructions for musicians are equally inclusive. They are even urged to maintain pleasant expressions, as witness: "Smile! It costs nothing. Your facial expression is as important as your appearance. We are desirous that a spirit of cheerfulness shall pervade the orchestra at all times. It makes far better music."

Directions are given concerning the exact type of clothes to be worn while playing. Instructions as to deportment are also detailed and are aimed to give an effect of dignity both while playing and during intermission. While on engagements musicians are warned not to cross their legs, to place their wraps in a room or place other than that in which they play, not to chew gum, smoke, read or to leave their places without the permission of the leader. They are also requested to address each other as Mr. So-and-so and to avoid the use of first names or nicknames, no matter how intimate they may be.

Employes are satisfied

THE unity of our organization and the fact that hundreds of musicians have been in its employ for a number of years are perhaps largely the results of that part of the instructions dealing with the attitude maintained toward individual musicians. In the matter of advancement the musician is encouraged to communicate with the main office should he feel that he has been overlooked. He is told:

"It is the wish and purpose of this organization that no employe shall be forgotten or lost sight of; but that every one whose name is on the pay roll shall be recognized as a part of this great force, and that his individual efforts shall be carefully considered.

"Should you at any time appear to be forgotten or overlooked, do not hesitate to call the attention of the main office or the secretary to the fact, and you may be sure that the matter will be carefully investigated."

Instructions provided for leaders of orchestras deal with a number of possibly difficult situations that may arise. Leaders are requested, for instance, to report any argumentative members of an orchestra to the secretary-manager and allow him to straighten out the difficulty. Leaders are also cautioned never to rebuke or criticise a musician within hearing of other members of the orchestra.

Importance of courtesy to patrons is recognized in instructions to honor all requests for special numbers, except under special circumstances.

Directors are told, "Recognize all requests and give precedence to them, except when printed programs are used. Then only with permission of host, hostess or manager."

Radio has helped orchestras

DESPITE the advent of radio and synchronized accompaniments for motion pictures, I believe the field for orchestras is enlarging instead of narrowing.

All these new developments in music mean that public interest in music is growing. If musical interests adapt their organizations to the new trends there is nothing to be apprehended.

Radio, for instance, has helped us. Most of our orchestras are in demand on the air and these radio appearances have implied increased popularity. When people plan a party they will choose a resort which features their favorite radio orchestra. Engagements for balls and private parties are also likely to go to orchestras that are best bets on the radio.

Another way in which radio has benefited us is the opportunity it offers to assemble special orchestras for advertisers.

We now maintain a separate bureau that concentrates on providing musical units for radio advertising.

Synchronized accompaniments for motion pictures represent a theater phase, in my opinion, that has reached its height and is already on the wane. Many leading film authorities also take this stand, I note.

There is nothing that will take the place of a fine orchestra in the pit of a theater. In the last year we have assembled a series of orchestras, ranging from 50 to 75 musicians for the Fox theaters. These big orchestras have been enthusiastically received and their work forms an integral part of the programs.

NORTHWEST AT 125 MILES AN HOUR!

Features of Ford Plane

All-metal (corrugated aluminum alloys)—for strength, uniformity of material, durability, economy of maintenance, and structural safety . . .

Tri-motored (Wright or Pratt & Whitney air-cooled engines, totaling from 900 to 1275 horsepower)—reserve power for safety.

Speed range—55 to 135 m. p. h. Cruising radius, 580-650 miles.

Disposable load—3670 to 5600 pounds.

High wing monoplane (single, stream-lined, cantilever wing)—for strength, speed, inherent stability, visibility, clean design . . .

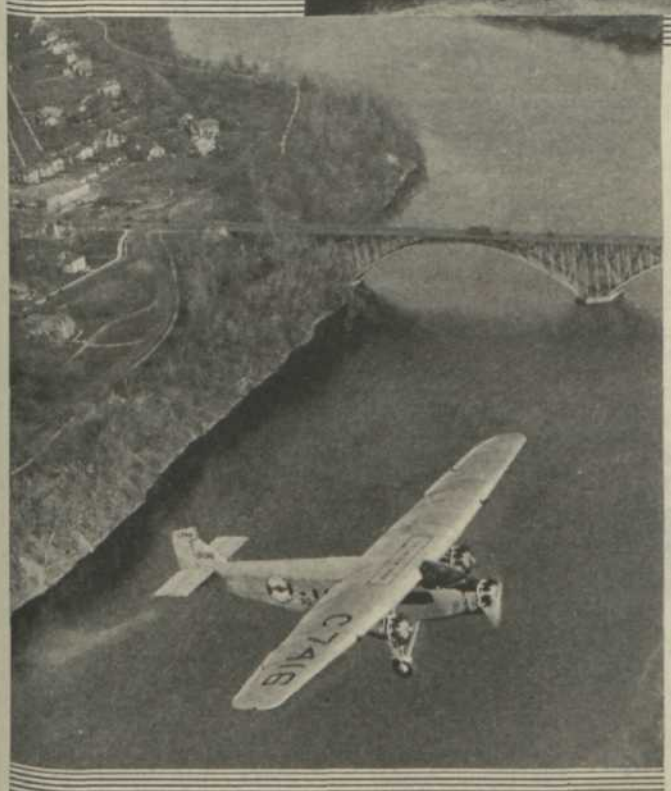
17 *capacity* (including pilot's dual-control cabin)—Buffet, toilet, running-water, electric lights, etc.

Durability—No Ford plane has yet worn out in service.

Price, $42,000 to $55,000 (standard equipped at Dearborn)—Exceptionally low because of multiple-unit on-line production methods.



Air passengers entering Northwest Airways Ford plane at Cicero Field, Chicago. Time, 3 P. M. They will be in Twin Cities, after a smooth, safe, glorious flight, at 6.40 P. M.! Modern air fields line the entire route.



Above the Twin Cities after gliding high in the air across some of the most beautiful and romantic country in America.

SPEED is an important consideration . . . but it is only one of many reasons that have made the Northwest Airways one of the most successful transportation companies in America, whether by land or sea or air.

This service, flying the skyways between Chicago and Twin Cities, was inaugurated in 1926, and has been in operation ever since, carrying mail, fast express and passengers. *95% of scheduled flights were completed!*

Latest model Ford all-metal, tri-motored planes are now in regular service on the Northwest Airways. These big machines, with great reserve power, have three motors, developing 1275 horse-power! With twelve passengers and pilots, they can maintain a comfortable speed of over 100 miles an hour, and reach a maximum speed of 135 miles an hour. *With only one engine turning, each of these planes may extend its gliding range for many miles. Landing fields are always within gliding distance.*

All planes are delightfully furnished and decorated. Travelers are provided with every comfort, including a lavatory with running-water; so that this swift passage across the sky may be enjoyed in mental and physical relaxation.

The Northwest Airways pioneered in the establishment of co-ordinated air-rail service in this country. Connection is made with six railroads, three of which operate from the West and Northwest and three from the East.

Ford all-metal, tri-motored planes have been put into service over this great skyway not only because the air-minded American public recognizes them as safe and dependable commercial air transports, but also because they have proved so highly efficient in all sorts of service.

Visitors are always welcome at the Ford Airport at Detroit.

FORD MOTOR COMPANY

Does Your Company Profit by Using America's Health Shield?

You insure against fire, against theft. Dun and Bradstreet give you a high rating. Your product is widely known and well liked. You are proud of the esprit de corps in your institution and, collectively, your "key" men are invaluable. Nothing is left to luck or chance that can be made safe.

Have you added one of the greatest of all protections in business—the Health Shield, which by annual physical examinations safeguards the health of important executives? Many thousands of valuable lives are being lengthened by using the Health Shield. Are you and your "key" men taking advantage of it?

HEALTH SHIELD



OLDEST WORLD-SYMBOL OF HEALTH AND HAPPINESS



CHINESE EMBLEM OF HEALTH AND IMMORTALITY



EGYPT'S SYMBOL OF LIFE AND ETERNITY



INDIA'S SIGN OF LONG LIFE AND HAPPINESS

The following Life Insurance Companies offer the health examinations of the LIFE EXTENSION INSTITUTE *free to certain classes of policyholders*

ARE YOU ELIGIBLE?

Metropolitan Life Insurance Company
New York, New York
Guardian Life Insurance Company of America
New York, New York
United Life and Accident Insurance Company
Concord, New Hampshire
Southern Union Life Insurance Company
Ft. Worth, Texas
Midland Mutual Life Insurance Company
Columbus, Ohio
Oregon Life Insurance Company
Portland, Oregon
Ontario Equitable Life & Accident Insurance Co., Waterloo, Ontario
Penn Mutual Life Insurance Company
Philadelphia, Pennsylvania
Volunteer State Life Insurance Company
Chattanooga, Tennessee
Mutual Life Assurance Company
Waterloo, Ontario
Supreme Liberty Life Insurance Company
Chicago, Illinois
Cedar Rapids Life Insurance Company
Cedar Rapids, Iowa
Midwest Life Insurance Company
Lincoln, Nebraska
Guarantee Fund Life Association
Omaha, Nebraska
Guaranty Life Insurance Company
Davenport, Iowa
Wisconsin National Life Insurance Company
Oshkosh, Wisconsin
George Washington Life Insurance Company
Charleston, West Virginia
Ohio State Life Insurance Company
Columbus, Ohio
Wisconsin Life Insurance Company
Madison, Wisconsin
Great Northern Life Insurance Company
Chicago, Illinois
Montreal Life Insurance Company
Montreal, Quebec
Western & Southern Life Insurance Company
Cincinnati, Ohio
Independent Life Insurance Company
Nashville, Tennessee
Berkshire Life Insurance Company
Pittsfield, Massachusetts
Baltimore Life Insurance Company
Baltimore, Maryland
Provident Life Insurance Company
Bismarck, North Dakota
People's Life Insurance Company
Frankfort, Indiana
Home Life Insurance Company
Little Rock and Fordyce, Arkansas
Des Moines Life and Annuity Company
Des Moines, Iowa
California State Life Insurance Company
Sacramento, California
West Coast Life Insurance Company
San Francisco, California
Gem City Life Insurance Company
Dayton, Ohio
Ancient Order of United Workmen
Newton, Kansas
National Life & Accident Insurance Company
Nashville, Tennessee
National Fidelity Life Insurance Company
Kansas City, Missouri
Missouri State Life Insurance Company
St. Louis, Missouri
Dominion of Canada Guarantee & Accident Insurance Co., Toronto, Canada



PERSIAN SYMBOL OF IMMORTALITY



SEMITIC EMBLEM OF LONG LIFE AND GOOD LUCK

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Cut off here — — — — *Mail to*

Life Extension Institute, Inc.

25 WEST FORTY-THIRD ST., NEW YORK CITY, N.Y.

I am a policyholder of the:

_____

☐ Please inform me whether I am entitled to a free examination and send me your booklet describing the Health Conservation Service for life insurance policyholders.

☐ I am not a policyholder in any of the insurance companies listed. Please send me, without cost or obligation, your health booklet "How to Live Long" and descriptions of the Institute's service for individual subscribers.

Name _____

Address _____

City and State _____



KEYSTONE VIEW CO.

Mr. Zero—a Splendid Failure

By Herbert Corey



COLVER

The man who guided diplomats now leads homeless derelicts

IF MR. ZERO worried about the souls of his bums I would not worry about Mr. Zero. If he thought the only way to reform society is to burn the state-houses I could understand. Advocates of this panacea may be heard on dim street corners on warm nights. But he is neither an evangelist nor a Red. He isn't crazy. He isn't even a nut.

He is only the man who has made a fine generous mess out of his life. Fifteen years ago he was on his way to leadership. He might have done great things.

He is a purveyor of five-cent soup to frowsies. In Mr. Zero's Tub on St. Mark's Place in New York gay-cats who have nickels sleep in slatted steamer chairs. A gay-cat is a man who works now and then. Mr. Zero is not doing anything that is not being as well done by the charitable agencies. To do it he threw himself away. This is a plea for moderation in all zeal.

I am writing as an admirer of Mr. Zero. I think he is all wrong, mind you, but I like him immensely. If he is not sincere and unselfish then years spent in the newspaper line have not taught me to estimate character. He comes nearer practicing the fundamentals of the Christian religion than any man I have even known.

Misdirected abilities

I THINK he is as wrong as any man can ever be.

I think he is so wrong that I am trying to make a moral lesson out of his life. This will betray me as a sour person who believes more in plows than in hosannas but it cannot be helped. If Mr. Zero had put his training and his capacities and his ability to lead men into constructive work he might have given social safety to thousands. His is the most flagrant case of misapplied altruism I have ever known.

It offends me because of what he might have done.

When I called on Mr. Zero he wore a suit that had been sent to The Tub by its first owner. Or maybe its second owner. He has not bought a suit for years. His shirt had passed through prior servitude. So had his shoes. His food that day had been the soup he

serves his frowsies, made of whatever vegetables were to be bought most cheaply on the market, enriched by meat still fit for cooking but which had lost its pot appeal to the housewife.

He had not been feeling well, he said. A slight touch of flu. He always has a little dash of flu in the wintertime. No complaint, mind you. It seemed to me that flu would be a certainty for one who lived in The Tub. Dark rooms. Clean enough, of course. Smelling of carbolic acid and damp with lukewarm water and yellow soap. Haunted by the pallid shapes of men who sat silent in the shades. Men who had no hope left in life. Men who were destined to the Potter's Field. Men who were—

Let this be said in all charity but in candor—

Men who were useless and done and broken.

Tragic failures of life

MEN who had thrown themselves away. Men who were drunkards and wastrels and thieves. Men, too, no doubt, who had been the victims of tragic fate, who had suffered at the hands of others; who had given their all as Mr. Zero has given his. Men who might have been among the communal assets and who had become economic liabilities.

Dead men who persisted in walking; who muttered obscene confidences in the bleak gloom of The Tub and who begged nickels for Zero's soup which keeps their aching corpses ambulant. Other men, too, no doubt. Men in whom there are still possibilities. Men who for a little time will still swing picks in the summer and flip the handles of road scrapers and ply slow shovels in the muck. Men who still resent charity and will one night die grimly in the snow. But not many of them.

Most of Mr. Zero's guests are the living dead.

Do not think that I do not know that this will infuriate the tender-hearted. It will wrack the sympathetic. Yet I maintain that a man of Mr. Zero's possibilities threw himself away when he began to minister to these wraiths. He could have done better for himself, for society, for them, if he had turned these failures, these beggars, these bums, these broken men, over to the not too tender mercies of organized charity and devoted himself to constructive work. They would have had their soup just the same. Free soup instead of nickel soup. Zero would tell you that they would have been pauperized. Bah! These men beg the nickels. They would have been compelled to go under showers and forced to sleep in harsh nightgowns.

Too, bad, no doubt. But let us not blink essential facts. These men are failures. Life is not tender to failures. Zero gave up success to devote himself to them. He is heroic, he is selfless, but he is Mr. Zero now. Nothing.

Zero rises at three o'clock, four o'clock, every morning, to stand at the doors of the flophouses and Bible missions to meet the men as they are turned into the streets. These men are full of salvation, no doubt. Crammed to the teeth with prospects of the life everlasting. But empty as kettledrums as to food. Flophouses are not charities. The Bible missions work or slender budgets.

Out these men come turning up shabby collars against the thin winds of the cheerless morning. Cold, hungry, and discouraged. They shamble along against the buildings.

"Take a ticket" says Zero morning after morning. Pierced by the chill winds of dawn. Powdered by the filthy dust of New York's streets. Shaking with the flu. "Get a bowl of soup. Then you can hunt for work with a better heart."

Some one has paid for the soup tickets. Zero gives nothing away. Or very little. He cannot afford giving. Charitable folk buy soup tickets and he gives them to the homeless and forlorn. To do that he gave up a career of honor. One might say of promised eminence. When Elihu Root was Secretary of State he cabled Urbain J. Ledoux—that was the name that Zero was born to in Maine—to ask that he retain his consulship at Prague. Later he wrote to express his sincere regret that Ledoux had insisted on resigning. Zero's dossier is filled with letters from men who have been his chiefs.

Was a diplomatic success

HIS was called the best consular office in Europe. A writer on economics identified him as the first to see that the American consul should be the advance man of American business. Newspapers and magazines editorially praised his grasp of European conditions.

I'll not recount his services nor his honors. Enough has been said to show that the man has made good. He speaks four or five languages fluently. He has the personality of a Bryan. Unctuous, perhaps, but magnetic in his sincerity. A great body, a fine head topped with graying curls, big, firm hands, a direct glance. A man who can and who has led men. He imposes his will on homeless men and outlaws. He might have become a leader of washed men, clean men, men who give work and make work, men who build roads and fill factories. The men who are followed by home makers and cheer and safety.

He is a filler of empty bums. He provides sleep in dark cellars for homeless men. He seems to me as fine and kind and sacrificial a man as I have ever known. He has sold all and given to the poor.

He is the most splendid failure I have ever known.



CULVER

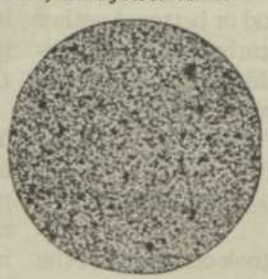
Service in Mr. Zero's Cafeteria is provided almost entirely by Michael Waldron, chef-in-chief, who presides at the steaming kettle from which the soup is ladled out to lines of pallid men

HOW EGYPTIAN LACQUERS ARE SOLVING CERTAIN PROBLEMS OF INDUSTRY

COVERING POWER in lacquer:

Here are the facts—in black and white—
so you can compare them for yourself

What the Microscope shows about **BLACK** lacquer, *for instance*

ORDINARY LACQUER	EGYPTIAN LACQUER
	
ABOVE: Ordinary black lacquer on microscope slide as it looks to the naked eye.	*ABOVE: Egyptian black lacquer actual size.*
BELOW: Portion of above sample magnified 100 times. Notice how the pigment is bunched and clotted—area not evenly covered.	*BELOW: Magnified to same size as sample on the left. See how fine, even, and close-textured the pigment is! No wonder it covers more, with fewer coats!*
	

THE best lacquer covers a surface quickly, with uniform depth of color, and with great economy. Inferior lacquers show up beside it as weak-colored, uneven. More coats are necessary. Even if these lacquers are cheap, using them turns out to be costly.

All this is an old story. Every finishing man *knows* this difference between Egyptian and ordinary lacquers.

But the difference has never been so clearly *shown* as in these comparative pictures—unretouched and unaltered reproductions of a single coat of black lacquer on a glass slide.

Egyptian superiority is just as great in transparent colored lacquers, clear lacquers, and colored lacquer enamels. We'd like to have you give them a trial.

EGYPTIAN SUPERIOR LACQUERS

EGYPTIAN Lacquers

THE EGYPTIAN LACQUER MFG. CO., INC., 90 WEST STREET, NEW YORK

Completely equipped branches in charge of practical men *are maintained in the following cities:*

ATLANTA • BOSTON • BUFFALO • CHICAGO • CINCINNATI • CLEVELAND • DALLAS • DETROIT
KANSAS CITY • LOS ANGELES • MONTREAL • PHILADELPHIA • PORTLAND, ORE. • SALT LAKE CITY • SAN FRANCISCO • SEATTLE • SPOKANE • ST. LOUIS

The maker who is proud of what he makes uses Egyptian Lacquers

Your Market's in Your Own Eyes



"How many uses has a toothpick?"

By J. KINDLEBERGER

President, Kalamazoo Vegetable Parchment Company

EVERY business man knows well enough that something is always taking orders away from his business. But there knowledge generally stops. For all of us do not see that our share of prosperity depends on the energy and foresight we bring to the solution of our problems. There is no novelty, of course, in providing formulas for success, yet I can offer the combination of concentrated thinking, gumption, hard work, and faith as one that has the decisive merit of effectiveness.

Right here I want to illustrate what I mean by thinking. To do so I shall relate two incidents that occurred in my youth. They were so impressive that I now regard them as guideposts of my business career.

About a dozen of us boys had heavy bobsleds and a fine coasting place on a nearby hill. Every day after school we hurried to our sliding place, as we called it. One day when we arrived we found that the owner of the hill had sprinkled several loads of ashes over our slide. I shall never forget the scene as we lined up along the slide and viewed the ashes.

There was much loud talking, swearing, crying, and many threats; but I noticed that three boys did not join the crying, nor the swearing, nor the threatening. They calmly studied the situation and began to think. One suggested that there was another hill close by, and that with a little effort we could have another sliding place just as good or better. Another suggested that a nearby woodshed contained some old shingles and perhaps some shovels that we could use in scraping off the ashes.

The thinkers get action

ONE OF the boys took command of the situation, organized the group, and every boy took so much space and began to scrape the ashes off. In a short time we were again enjoying the sport.

There is more or less weeping and swearing and threatening going on in your business life. Every morning, when you arrive at your desk you discover that during the night some one has dumped ashes on your beautiful slide.



I visit a certain restaurant to enjoy its baked apples

The second incident occurred when I was in college. Our psychology professor gave us his famous lecture in "Freshman Psychology." He asked six or eight questions in rapid succession. "How many steps in front of Gray Chapel?" "How many trees in the front campus?" "What is the approximate distance from the chapel to the post office?" "How many stories in Science Hall?" The answers from various members of the class clearly demonstrated that men have eyes but see not, ears but they hear not, thinking apparatus but they think not.

The professor pulled a toothpick from his pocket, held it up to the class, and asked, "How many uses has this toothpick?" "What improvement can be made on it?" These questions made a deep impression on me, for I came to believe that everything can be improved and a new use found for it by way of concentrated thought.

I am aware of the busy program of the average business man, the bidding for his time, the many conferences every day, golf in the afternoon, and bridge parties in the evening. My suggestion would be that one night of the week should be set aside for concentrated thought on the development of your business. The ordinary man in looking for new markets for his product will invariably look afar off, take the longest and the hardest way around, and use the most expensive method. The chances are that 99 times out of 100 the "diamonds" he is looking for will be in his own backyard.

I would suggest that you look at the things in your own home. One or two hours of concentrated thought on the furnishings and equipment of your home





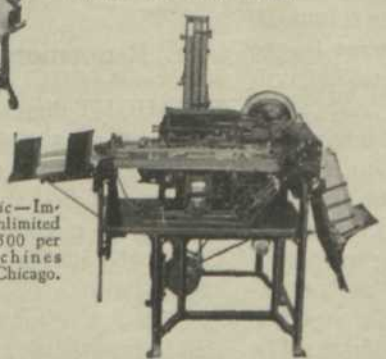
Model H-3 — $75. Imprints names or data, 1200 to 1800 impressions an hour! Other hand operated machines from $20 to $105. All prices f. o. b. Chicago.



Model F-2 Electric — Handles names and data writing on all forms thru a ribbon. 2,000 to 3,000 impressions an hour. Electrically operated models $285 up, f. o. b. Chicago.



Dupligraph — Model D-3 — Leased at $65 per month. Prints 2,000 letters per hour, complete with name, address, salutation, date, entire letter and signature. Other models of duplicating machines sold at $57.50 to $1,770, f. o. b. Chicago.



Model A-4 Automatic—Imprints an almost unlimited variety of forms, 7,500 per hour. Automatic machines $485 up, f. o. b. Chicago.



Cardograph — $57.50 f. o. b. Chicago. Produces 1500 messages on post cards in an hour!

Making Minutes Produce Like Hours

SPEED is the order of the day in modern business — speed that gets things done in the shortest possible time, *without errors, at lowest cost*. Precious time *must* be saved! Slow laborious methods *must* give way!

Office "hand work" is a relic of a bygone age in business — a time waster, a profit eater. Yet in some concerns *hands* are still heading statements — writing sales letters — filling-in collection forms — imprinting factory job tickets — listing payroll forms—writing payroll and dividend checks—writing shipping forms — addressing wrappers — listing mailer strips — duplicating letters and office forms — and countless other tasks where names and data must be recorded.

Would you be interested in doing this work 10 to 50 times faster, at less cost and without possibility of error, as thousands of other concerns are now doing? Helpful advice and information will gladly be sent, without obligation. Just mail the coupon below.

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We are interested in saving time, increasing sales and reducing expense. Please send information without obligation.

9-29

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will surprise you with the possibilities of new uses for commodities.

By way of illustration, let me describe one of these evenings of concentrated thought in my own home.

I first concentrated my thought on a bottle of vaseline. I asked, "What do I use this stuff for now?" "How many possible uses has it?" I took the bottle and walked through the house, starting in the basement. I looked at the battery of my radio. I saw that the posts of this battery were corroded badly, a condition interfering with the proper functioning of the radio. I removed the corrosion, put on some vaseline, and found this was good.

Searching for new uses

I NEXT applied vaseline to the bolts, nuts and valves of the water softener which were rusting badly and were hard to manipulate. I found this also was good. I next used it on the bolts and the hinges of my automobile. I found this, too, was good. The doors of my furnace and the check door did not work freely. After applying the vaseline I found that they swung easily.

I took the vaseline with me to the mill next day. In our research department we had been working on a paper that would be an improvement over the paper used for wrapping fresh meat. We found that vaseline was quite an improvement over oils and waxes. It made a beautiful soft sheet, and the fibres of the paper did not stick to the meat. The repeat orders that have come in for this paper show that we have developed a paper that will fill a long felt want.

One day I went to my desk for a plain sheet of paper to write down an idea or two. I found that all my paper had been used up by my boy who was in school. I asked my wife whether she had any writing paper, and she directed me to the left-hand drawer of her desk. I found a few dozen sheets of beautifully engraved stationery. My sense of economy prevented me from using this paper, and it occurred to me that this was pretty much the case in every home. So if a package of paper of a good size, at least a ream, could be put up in a convenient package, there would always be plenty of paper in the home. This product, too, would fill a long felt want. We made such a package and it has been a good line with us.



I used vaseline on the hinges of my automobile and found it good

Our shelf and lining paper was born from a remark I heard in a street car. A woman sitting behind me said to another woman that she was going to town to get some paper to cover her shelves. The other woman said she did not like that large paper because there was so much waste to it. That remark was the beginning of our shelf and lining paper put up in a continuous roll. This has been a profitable line with us.



I didn't want such good paper just for a memorandum

We believe it's a good idea to key up the whole organization, even including the office boy, to be constantly on the lookout for new uses for our commodities. There is no hokus pokus to the development of new markets. Concentrated thought will do it.

Changes in commodities, methods of manufacturing and distribution are coming fast. A change of one commodity means thousands of changes in others. When the crossword puzzle was born, it immediately started up machines to make paper for printing new dictionaries. The automobile created new markets for commodities too numerous to mention, but how many of us would include among them the choice corner lots in our cities?

The anticipation of demand has made many business fortunes.

Our own business grew big through the discovery of the microbe that gets into food, and food protection papers have been our specialty. The colored tile bathrooms and kitchens have created a demand for modern homes. The new colors of the kitchen have created a demand for colored kitchen utensils.

What I am getting at is this, keep your eyes open for the changes that are coming because they carry with them many others. As I said in the beginning, your prosperity will depend upon your energy and foresight.

We are like children standing under a tree that is full of luscious fruit. We pick the fruit that is easy to pick, or we may be satisfied with the windfalls at our feet; but to obtain the choice fruit we must have energy to climb the tree and take the risk—perhaps a fall.

Eternal watchfulness of the quality of your merchandise is a direct avenue to new markets. Our advice would be to seek quality first and all the business you can produce will come to you. Using the phraseology of the Psalm Writer.

"Once I was young and I am now old, and never have I seen Quality forsaken nor begging bread."

Let me illustrate by the careers of two men. One of these men is in the bread-baking business, and the other is a manufacturer of oleomargarine. We have been serving these two concerns about 15 or 16 years. Their product is recognized as perfection.

These men can be found every day in their factory or testing room zealously watching the quality of their products. This manufacturer has produced such a remarkable quality of bread that housewives buy it in preference to baking their own. The oleo manufacturer has consistently made such a good product that many prefer his brand of oleo to many brands of butter.

Reputation for quality

WE MIGHT digress here just for a moment and show the hard-boiled buyer an excellent way to make money for his concern—by first thinking of quality.

There is a colored man in Battle Creek who makes chicken sandwiches known far and wide for their quality.

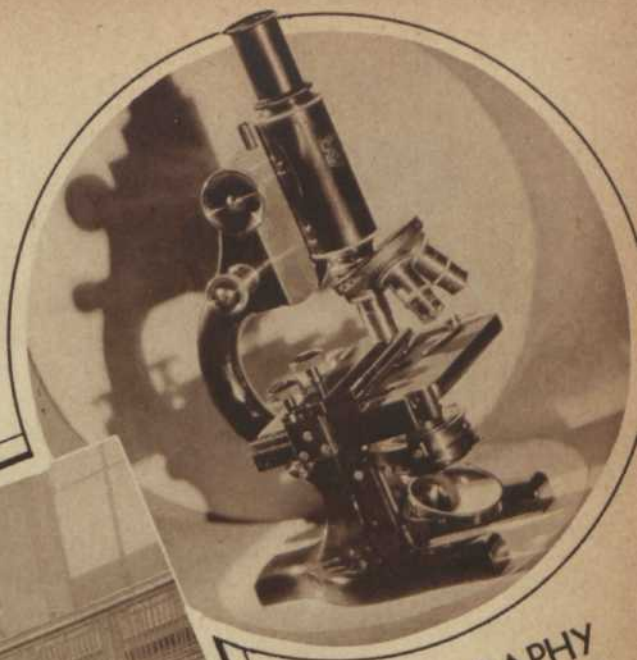
There is a restaurant in Philadelphia that serves delicious baked apples. In the last 25 years I have never gone to Philadelphia—and I go often—without stopping in this restaurant just to get a baked apple because of the quality.

There is only one dessert that I call for in the diner of the Michigan Central, and that is ice cream, and only because of its delicious quality.

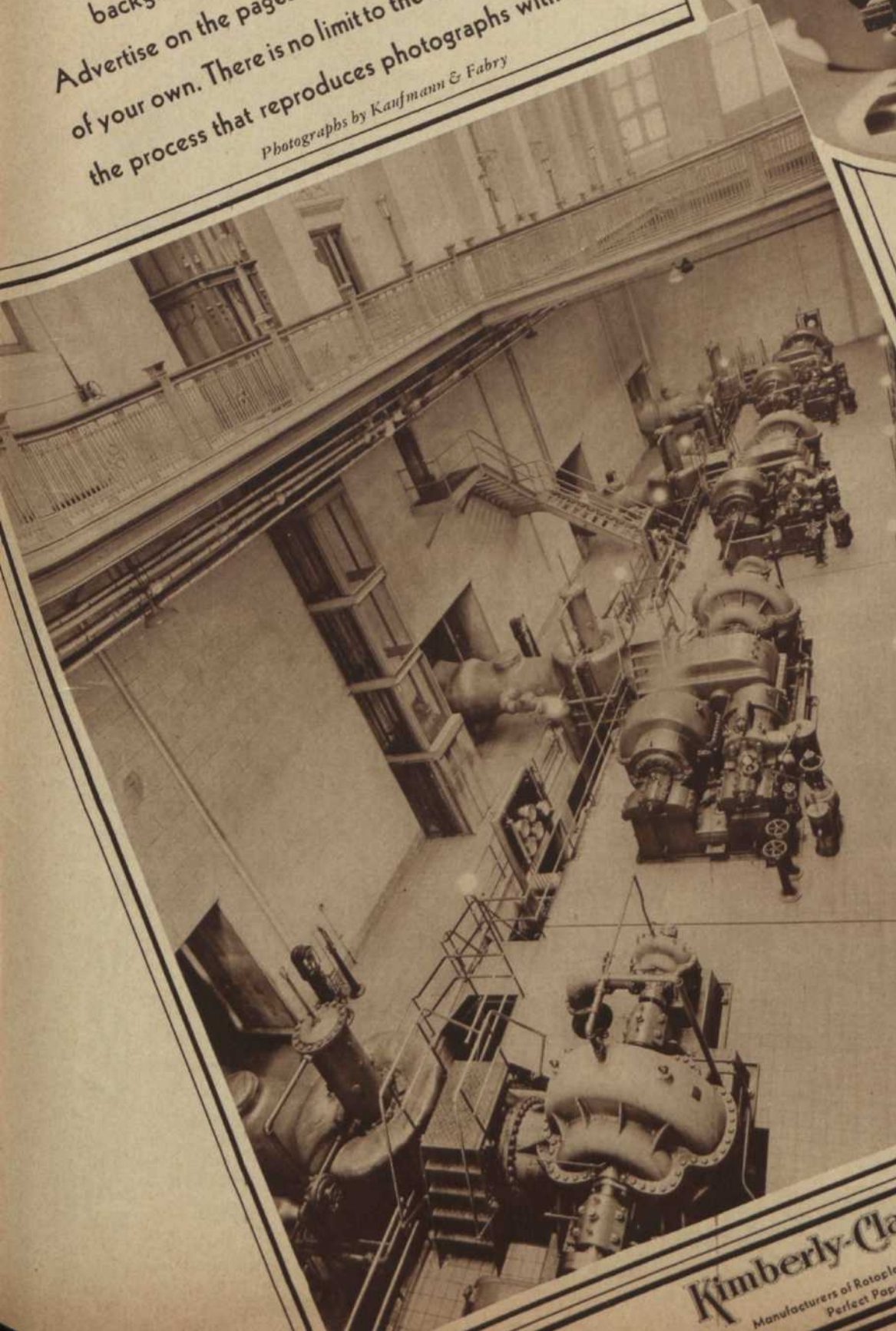
Quality will create the demand. We generally believe that supply will follow demand. I am convinced that demand will be created by a quality article.

No Limit

Picture the delicacy of a microscope or the strength of a giant machine. Gain modernity through the use of background or through distortion by the camera itself. Advertise on the pages of a newspaper or in a catalog of your own. There is no limit to the uses of rotogravure, the process that reproduces photographs with fidelity.



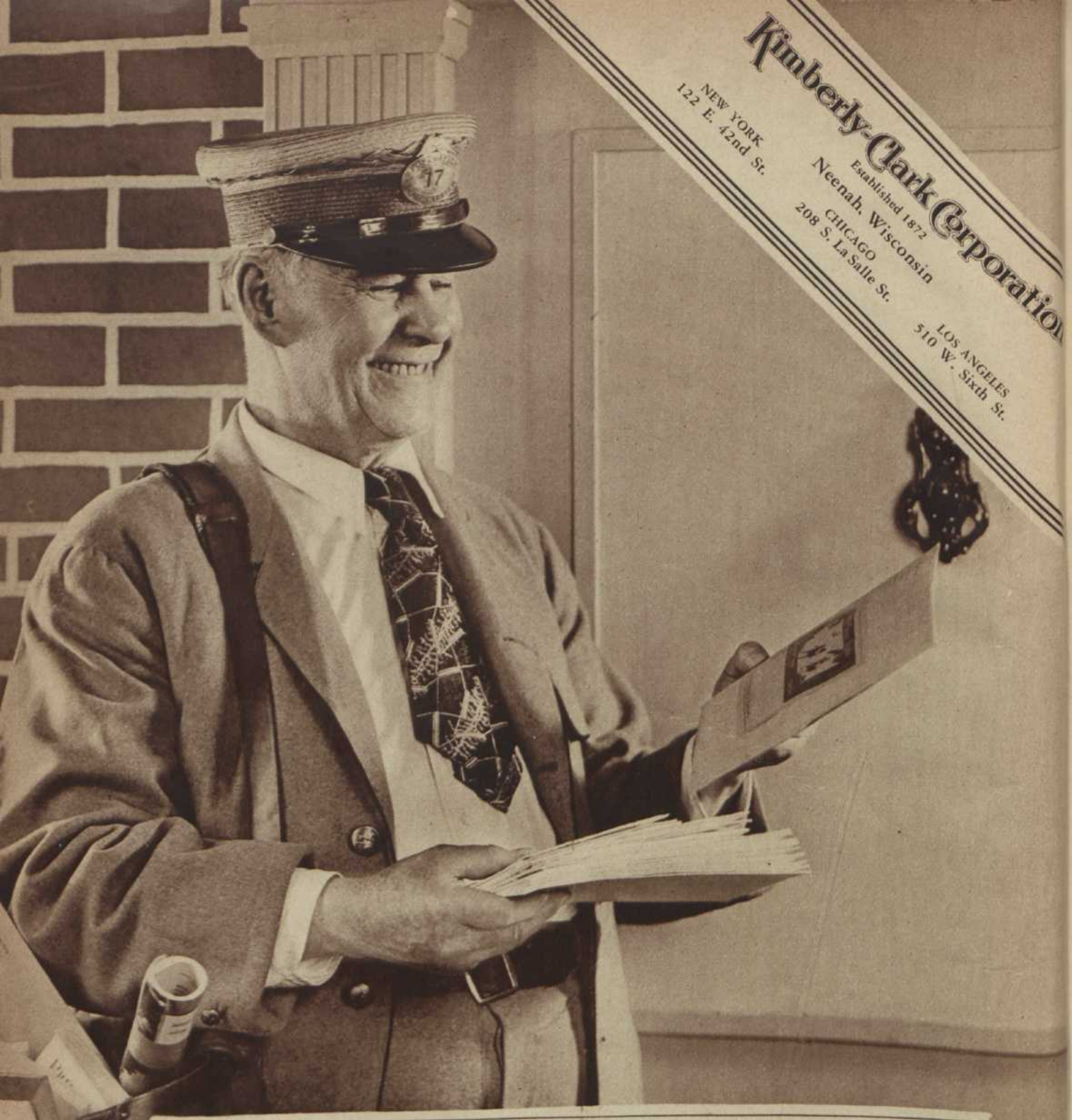
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Photograph by McManus

The Growing Pains of Aviation

(*Continued from page 21*)

pound, depending, of course, on the length of haul. With the narrowing of the profit margin and the fact that the cost of operating a mail plane, including overhead, is about 40 cents a mile under favorable conditions, the need for a large volume of mail is apparent.

A great deal of public education remains to be done if the need is to be met. Bankers are finding air mail invaluable in saving interest charges on checks sent in for clearance, and other special and emergency uses have been well developed. But there is still a vast field of routine business in which air mail may be used in cutting costs by saving time, and this field remains to be cultivated.

A question of bookkeeping

DETERMINATION of the degree to which the operations of individual transport companies are profitable is made difficult by the lack of standardized systems of accounting in the industry. The optimistic black figures of some companies might be changed to red, were the bookkeeping methods of the more conservative corporations employed.

This is especially true in the matter of depreciation. One large and successful transport line charges off for depreciation on the basis of 1,000 hours for the life of a plane.

Other lines, however, figure depreciations on as much as a three-year basis. The wisdom of this must be questioned in the light of the rapid technical progress being made in the industry. In some rare instances, for example, new types of planes have become obsolete in as little as four months. They are still good after that, of course, but new developments have made their operation uneconomical. It is probably true, therefore, that some lines are showing profits because of too great liberality in figuring depreciation, and in failing accurately to account for obsolescence.

The use of antiquated and dangerous flying equipment, of course, is now pretty well restricted to operations within state boundaries, for the National Government sets high requirements for aircraft engaged in interstate commerce. Some operators undoubtedly would welcome an even greater control, perhaps even regulation similar to that exercised by the Interstate Commerce Commission over the railroads. The problem of

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wasteful competition, however, is being regulated by economic law operating through liquidations of weak companies or through consolidations to achieve operation economies.

A great deal has been said and written about the growing air-mindedness of the American people, and the expansion of air travel, but the fact is that it is still relatively small. The West—especially California and the Southwest—is the only section where it has had any great development.

Some of aviation's problems

NOTWITHSTANDING the optimism for the future which prevails in commercial aviation, however, the fact remains that it has many problems yet to be solved. For one thing, aviation is experiencing a wave of expansion which may prove to be overrapid in some instances. Moreover, at the beginning of the year, the number of licensed pilots was virtually the same as the number of licensed planes. The problem of training competent transport pilots in sufficient numbers to meet the growing demand is one of the most difficult faced by the industry.

Competition resulting from the effort to sell the capacity output of the numerous airplane manufacturers already has given rise to some price cutting. The outlook in this respect is that the larger manufacturers—those allied with transport lines and able to benefit from the economies of large-scale, straight-line production—eventually will emerge stronger as a result of the competition.

To sum up this picture, I regard the industry as fundamentally sound, although suffering somewhat from the growing pains of overexpansion and inflation, and the need for additional revenue. I believe that the necessary period of deflation will be nothing to occasion alarm, and will leave the industry stronger by weeding out its weaker units.

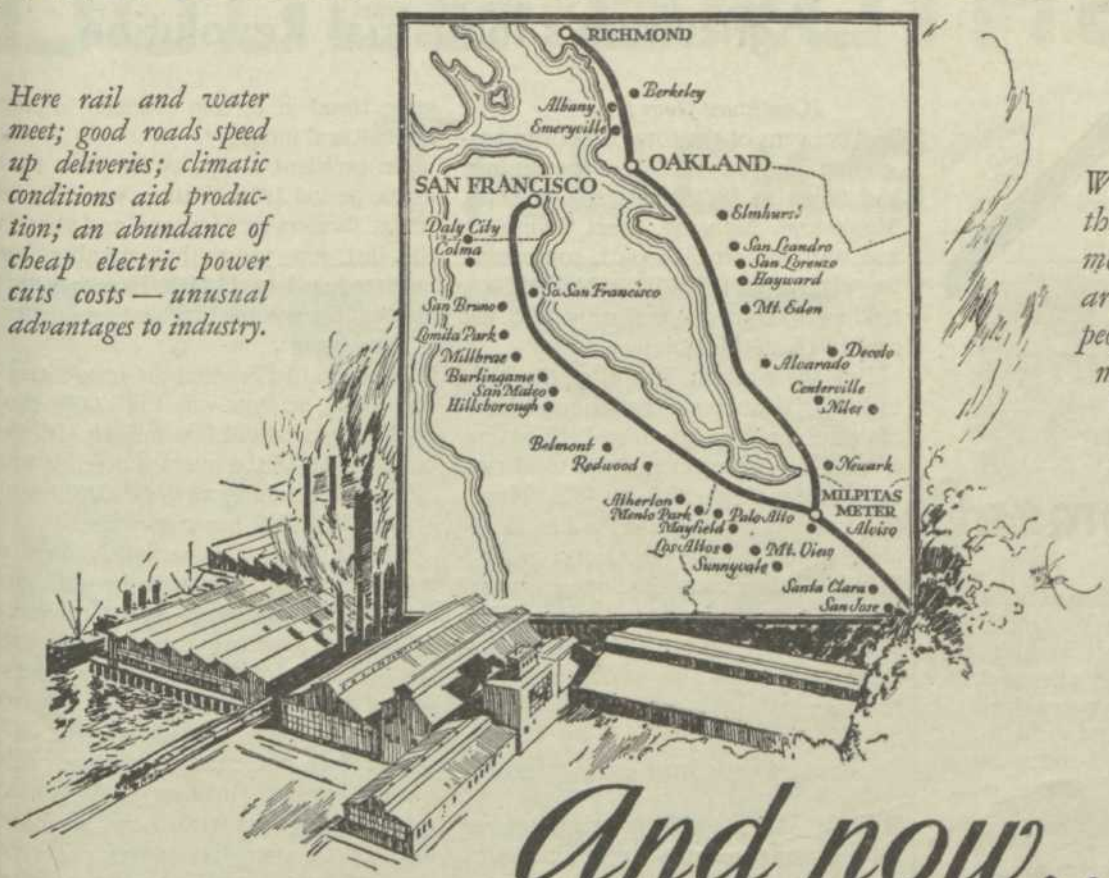
No industry has anything to gain by ignoring its weaknesses, and the weaknesses of the aviation industry are no greater than were those of the railroad and automotive industries in their corresponding periods of development.

Aviation bids fair to take its place with those great facilities of transportation in serving the needs and advancing the progress of civilization.

One of the unusual signs of strength in aviation is the rapidity with which the leaders recognize mistakes and correct them. So long as that spirit prevails, the growth of the industry is bound to be sound and progressive.

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Agriculture's Industrial Revolution

(*Continued from page 18*)

28.2 per cent of the total American cotton acreage. In 1928 that percentage had fallen to 18. Arkansas, Louisiana, Mississippi, Alabama, West Tennessee and southeastern Missouri, comprising the central section of the old belt, are holding their own, producing 32.3 per cent of the total American acreage.

But the western section of the belt, including Oklahoma, Texas and southeastern New Mexico, since 1918 has increased its percentage of the total cotton acreage from 39.5 to 48.9. There, particularly in the Texas Panhandle region, the farms are larger and rainfall lighter. This means that one man can operate a larger number of acres of cotton than the man in the humid section where the farms are smaller and the rainfall greater.

Rain, weeds and cultivation

RAINFALL in the growing season means weeds, and weeds mean incessant cultivation. The Texas Panhandle cotton grower produces his crop at less cost than his competitor across the Mississippi because he can use tractors to better advantage, needs to cultivate less frequently, and actually is carrying mass-production methods into the harvesting of the crop.

He "sleds" the cotton plants, taking off cotton, bolls, leaves, twigs and anything else that happens to be in the way. He puts this cotton through a cleaning machine, and although the final product contains foreign material, the operation pays. The old practice of laboriously picking the cotton from each lock in the boll by hand results in a cleaner product at a higher price. This hand-picking, together with the practice of chopping cotton with hoes, gave rise to the phrase that cotton is a hand-made crop. It is a machine-made crop now in the western section of the belt.

These changes in two great branches of American agriculture are significant. They are cutting production costs and enabling fewer men to raise the same or even greater volumes of wheat and cotton than were possible a relatively few years ago with a vastly greater number of producers.

Manufacturers are making a constant effort to locate their plants in sections where numerous factors operate to lower production costs. It is not remarkable that we should see manifestations of the same trend in certain branches of our agricultural industry.

On excellent authority we learn that in the period 1915-17 there were 35,000 wheat farmers in Montana and that in the last few years that number has been reduced to 14,000. How has this affected the volume of wheat production in that State?

In the 1915-17 period the state's average wheat acreage was 1,601,000; production was 24,031,000 bushels. In the period 1926-28 the average acreage was 3,885,000; production, 67,390,000 bushels—with 21,000 fewer growers.

This is bringing us perilously close to an observation that is easily misinterpreted—if Montana's wheat production can be so greatly increased through the operation of 21,000 fewer growers, why should those 21,000 growers be expected to remain in business?

One does not need to confine one's illustrations to wheat or to Montana. Agriculture teems with them. We have heard little else about agriculture in the past eight years. But what we have heard has not been so much admiration for this splendid showing of increased efficiency as it has been dire prediction that agriculture would be depopulated, or that the few remaining on the farms would be reduced to peasantry and the nation's future threatened by an inevitable shortage of food and fiber.

As to the point that American farmers are headed toward peasantry, one should inquire where that condition is to be found among producers who use labor-saving devices. You cannot bring peasantry to a people instinctively machinery-minded.

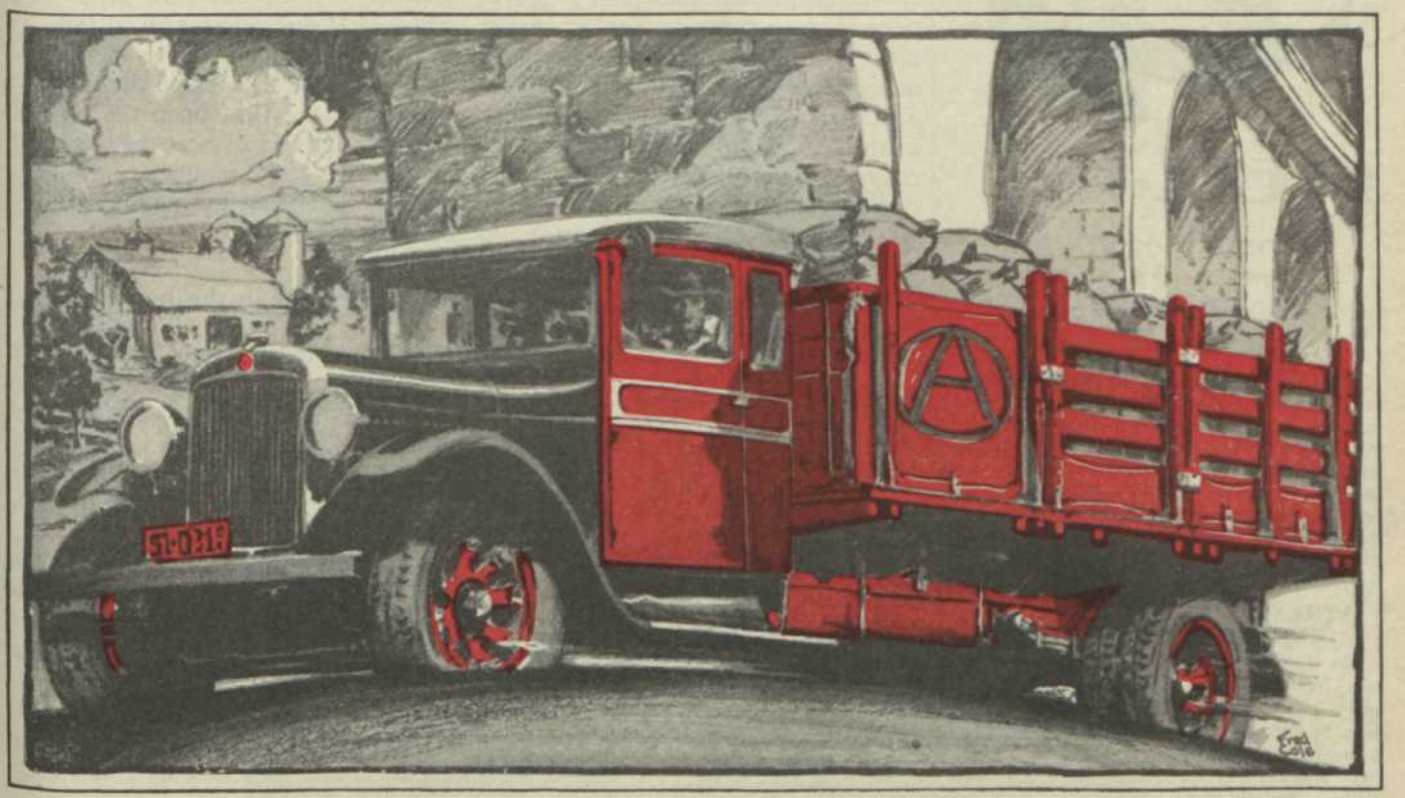
The record of eight years

I SAID this point could be easily misinterpreted. It often is. We are likely to brand as an antiquated economist the man who calls attention to the fact that between 1920 and 1928 American agriculture lost 3,000,000 in farm population, 13,000,000 acres in cultivation and 3,000,000 horses and mules on the farms—that in spite of these decreases aggregate crop production in the same period increased nearly five per cent and the productivity of each farm worker increased 15 per cent.

Our neighbors in Canada feel the workings of these same great forces. In the prairie provinces, where machine methods are so readily applied to agri-

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culture, mass production of wheat is bringing about problems similar to those in this country. Although the farm population in western Canada is said to be increasing, the Dominion Department of Agriculture is authority for the statement that the increase in agricultural production in these provinces is double the farm population increase.

We hear little about the tremendous reductions in the numbers of employes necessary to carry on certain great manufacturing industries under a schedule of increased production. This is going on in a degree as marked as in agriculture. Dr. Julius Klein, Assistant Secretary of Commerce, commenting on this trend said:

"A great automobile company increases its production 1,400 per cent with an addition of only 10 per cent in its personnel. In automotive manufacturing as a whole the actual output per worker has risen from 7.2 units in 1913 to 11.5 at the present. In other words, the need of labor in that industry has decreased more than 50 per cent in ratio to the production. Our factories have decreased their employes by 917,000 since 1920, particularly because of the vastly improved production efficiency of the plants."

This constant replacement of men in our productive enterprises and their subsequent absorption in new fields is a manifestation of perhaps the greatest industrial revolution ever staged. Agriculture and manufacturing hand in hand are playing the title roles in this spectacular drama.

One reason this revolution has assumed such tremendous political significance is that farmers who are not needed because production can be maintained or even increased by a smaller number of operators must uproot themselves and their families from the soil and be transplanted into perhaps an altogether new environment for employment.

Conflicting schools of thought

THAT replacement process has given rise to political issues of first magnitude. It has developed in this country two distinct schools of thought. One might be called the school of orthodox economists who see in this replacement merely the workings of inexorable laws of economics. The other school maintains that the country can ill afford to allow these families to be taken from the land because of the social consequences involved.

Nevertheless, the great industrial revolution in agriculture persists.

The dairy industry offers another example of what higher per-unit production can accomplish. From 1916 to 1926 the production of milk in this country increased from 80 billion pounds to nearly 122 billion. In the same period the number of dairy cows decreased. Put another way, the number of dairy cows to 1,000 customers in 1916 was 225 and in 1926 was 129. All because the average production per cow increased. Let me quote A. J. Glover, editor of *Hoard's Dairyman* on this:

"Notwithstanding our rapidly growing population, it is within the limits of practical attainment upon the part of the dairy farmers to meet the increased demand for dairy products until 1950 without increasing the number of our dairy cows."

Efficiency in the henyard

THE same trend can be found in the production of eggs. According to the United States Bureau of Agricultural Economics, the number of hens in farm flocks this year was about four per cent less than a year ago, and yet production of eggs has been increased.

The same bureau is authority for the statement that between 1910 and 1925 the number of apple trees in the United States decreased nearly 40 per cent. Yet production of apples has been practically maintained. This means that the 60 per cent of trees left standing in the orchards are producing as abundantly as did the 100 per cent.

Look at it any way you will, the fact stares you in the face that fewer farms, fewer farm workers and fewer animal units not only are maintaining volume production but frequently increasing it. It is estimated that farm production in this country has increased 50 per cent more rapidly than population since the World War and that because there is evidence of a slowing up of our population growth, it should not be necessary to expand the net farm area of the United States in the next decade.

It should not be difficult to sense from some of these facts the tremendous competition going on today within the ranks of our farm producers. We hear a great deal about competition in other industry, but I doubt if this competition is any more strenuous than that which we find in agriculture. Those who survive it do so by sheer weight of their ability to produce at lower cost than their competitors and to offer higher grade products. It is no great problem to increase volume production. But it is a slower process to increase quality all down the line. It is seldom that we hear complaints of overproduction of high quality.

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A model grocery store set up in Louisville by the Department of Commerce

Why Do Retail Grocers Fail?

Analyzing the facts about the food trade

By R. H. ROWE

WHEN the attempt is made to apply the exactness of modern statistical control to so traditionally an inexact business as that of the usual run of corner or community grocery stores, the reactions are both enlightening and amusing to students of business.

This has been one of the interesting developments of the Louisville Grocery Survey.

The statistical experts of the Domestic Division of the United States Department of Commerce in cooperation with the grocery and other business and financial interests of Louisville, Ky., have been digging up all the facts and figures worth knowing about the food trade in that city.

They have taken a census of food distribution by volume and cost of doing business, have studied business mortality and credit procedure, have compiled data of population characteristics and purchasing power for the various sections of Louisville, setting forth the results on a city map colored for each income level, have ascertained the facts of consumer demand and preference and have analyzed wholesale and retail distribution costs. All this has been done with the idea that the information so obtained will be used to improve grocery distribution in Louisville and in other cities and particularly to lessen the one-a-day mortality which has afflicted retail grocery establishments in Louisville for several years.

The compiling of these voluminous statistics followed familiar lines of procedure and went forward rapidly and smoothly until it reached the family grocery stores and then for the time being, at least, it fell down.

They kept no records

THESE stores had no business ledgers from which statistics for the survey could be drawn. They had never kept any records.

The survey workers were compelled to create and install the necessary records. They began with inventories. Voluntary crews worked at night. It was an unusual experience for many of the grocers, a strange event in many of the neighborhoods.

At one of the stores the inventory crew was taking articles from shelves, bins and showcases, counting and listing them when a police lieutenant hurried in and demanded:

"What's the trouble here, now? Speak up! What's going on?"

"No trouble at all, officer," was the reply. "Just taking inventory of stock."

"Well, that's different," said the policeman. "Somebody phoned in an emergency call to headquarters to rush out here, that this store was being looted."

The inventory takers on another occasion drew up in front of a store, prepared to begin their nightly labors. They were amazed to see a big cloth sign over the door reading: "Big Raid Here Tonight! Watch Results."

Inside, the store was gayly decorated and a three-piece jazz band was performing. Elaborate refreshments, liquid and otherwise, were served. The proprietor's idea of an inventory was something to make whoopee over.

Statistical guidance is now recognized as the first essential of progress in modern grocery retailing but in many cases it crashes head on with established habits prevailing in the type of store operated by a family. A man, his wife and daughter who conducted a grocery in Louisville and who desired to participate in the Survey were told that an



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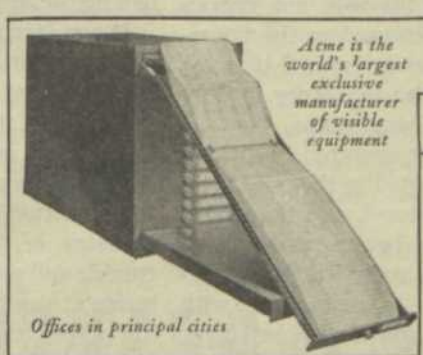
"Take our Purchasing Department for example . . . before we put in Acme, they were always in a stew . . . stock out of line with production, shipments specified late or early, too many of this item, too few of that, with the result that our antiquated records were draining the life blood of the organization.

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adequate salary must be allotted to the husband and proper wages to the wife and daughter for such time as they devoted to the store.

This met with the approval of the woman but when she was further informed that a strict record must be kept of all food withdrawn from the store for family use, her reply was "Nothing doing; nobody's going to tell me what I'm to put on my table!"

Another instance of how hard it is to bend family custom to the requirements of modern business is that of the Louisville patriarch and his community hangout. Many years ago he erected four adjoining store buildings and operated in them a hardware business, drygoods business, a grocery and a saloon.

At present he conducts the hardware business, his wife the drygoods business and his two sons the grocery business. The sons also sell soft drinks in the old saloon structure next door to the grocery. The soft drink business hardly pays for itself in summer and is a total loss in winter but throughout the year the place is a community center.

The patriarch likes it so, likes to have his business and family friends, old and new, gather there to fraternize and talk. The sons want to tear away the intervening wall and use the room for their expanding grocery business but the father will have none of it.

Individual habits and idiosyncrasies also set a bar to progress. One retailer so cherishes his elaborate but out-of-date fixtures that he refuses to part with them although he realizes they hurt his business. Some years ago he bought what was then considered the last word in retail grocery bins, counters, shelving and display cases. Because of his purchases his store was long a show place as the best equipped grocery of its class in the city. So swiftly do changes come, however, that these fixtures are now out-moded. They conceal his goods instead of displaying them.

Good as an antique shop

ANOTHER store was found which would be a real joy to students of prehistoric merchandising. Fossil remains of bygone eras were uncovered—a homemade cash register which after the creaking of a handle and a whirr and clatter of wheels, finally ejected a printed slip; a case of merchandise which upon being opened was found to contain such diverse items as canned pineapple, pancake flour and fly poison; numerous other cases of goods of brands no longer manufactured.

The groceryman, however, clings to these antiquated food products as if they were cherished keepsakes, and keepsakes they undoubtedly are.

Investing too much of his capital in nongrocery lines such as piece drygoods, hosiery, underwear and other garments is preventing another retailer from living up to the advantage of his location and clientele. The Survey also showed that a retailer who stocked a line of paints sold only one can in two months. The retail grocery business today demands so much merchandising skill and activity that it is beyond the ability of the average dealer to lap over into other products.

In the march of progress, custom, tradition and individual peculiarity must give way. The truth the poet long ago discovered, that the old order must change, yielding place to the new, is forced upon the business man whether or not he desires to accept it. That the new methods will win through is already apparent in Louisville.

Remodeling helps business

A WOMAN grocer who had conducted a fairly successful neighborhood store in the usual haphazard way realized the necessity of revamping her business in accord with modern conditions. Under expert guidance she lowered the floor of the store building, doing away with three steps up which customers had climbed to enter the store. Her stock arrangement had been a hodge-podge, but now all her merchandise is displayed after the most modern manner. She is able to serve her customers more quickly at less cost. Her business is showing a substantial increase.

Another grocer has effected a similar rearrangement of his store and stock. Also he keeps accurate books recording every proper charge against the business, including rental for the building which he owns, salary for himself, part-time remuneration for his wife and entries for all food articles used in the household. He now does an annual business of $115,000 with an inventory of only $3,000 and has 37 stock turns.

Another grocery operated by a man and his wife is located in the midst of a cluster of chain stores, yet they do a profitable business because they please their patrons with an invitingly arranged and attractively kept store, with merchandise that is in popular favor and with a courteous, friendly service.

The statistical information afforded by the Survey is enabling retailers generally to adapt their businesses to the particular requirements of their location and to the tastes, preferences and prejudices of their customers. An example of this is a grocery in one of the high income sections of Louisville. It caters to the charge-and-delivery trade. Ninety per cent of its business is on credit and 90 per cent is delivered.

The proprietors of this store own their store property as well as another store building which adjoins it. The adjoining building they have rented to a unit of one of the large chain systems. They do not fear chain competition because it cannot reach the requirements of the customers to whom they cater.

Another case of adaptation to clientele is that of the grocer whose business is in one of the negro sections of the city. Negroes are consistent and persistent buyers of certain food products. Their food wants are not varied. Hence, this retailer stocks only about 550 items. His windows are arrayed with assortments of food of which the negro is fond. Among these are pigtails, headcheese and chitterlings, which even the local food market of Louisville is not able to supply in sufficient quantities.

The Louisville Survey is making plain the collective wastes and losses which have long afflicted distribution. It costs the wholesale grocers of Louisville $7.50 a day to solicit the business of one retailer whose total sales amount to only $2,500 annually, which is another way of saying that the expense of selling this retailer equals his total volume of business. The average volume of 79 retail grocery and meat stores in Louisville averages only $2,678 a year. It is clear that a large selling waste is occurring here.

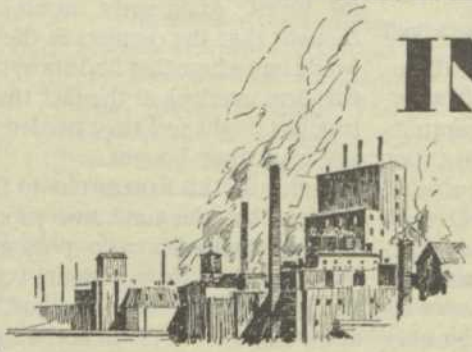
Profitless small orders

ANOTHER distributive waste is found in the fact that a large percentage of the business of wholesale grocers is made up of five and ten dollar orders from retailers and that such orders are handled with little or no profit.

It was Herbert Hoover who, when he was Secretary of Commerce, pointed out collective trade wastes and losses as the chief trouble with distribution and not any undue profits going to middlemen. It was his genius that directed the attention of the commerce and the industry of the country to the real trouble and set the Department of Commerce at work ferreting it out and seeking proper remedies.

It may be fairly said that it is the business engineering ability of Herbert Hoover that in Louisville is touching the livelihood methods of the average man and directing them into more productive channels.

Now *they're* MARKETING INTELLIGENTLY

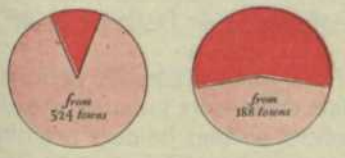


SOMETHING was wrong!... They might have conferenced ... and smoked copious quantities of cigars ... and gotten nowhere ... but they didn't....

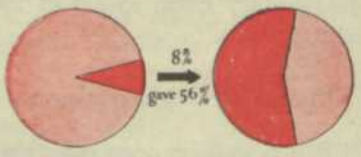
Problem 1: The territories were large ... the salesmen couldn't get around them often enough ... yet the company didn't want to increase costs, by adding to the force.

Problem 2: There were plenty of dealers on the books ... but the volume of sales from them was showing only nominal increases....

They dug into their sales figures ... with a Marchant Calculator ... and here's what they found out....



Fact 1: 524 towns, scattered all over the country, were giving them only 12% of the total sales ... while 188 towns, well concentrated, and easy to get at, had returned 55% of the total sales ... and the potential market in these 188 towns hadn't even been scratched.



Fact 2: 8% of the dealers were turning in 56% of the sales ... and these dealers were getting less than 10% of the potential business in their territories....

You can judge for yourself if this Company is going to save money on its distribution costs ... with facts like these....

The figures were right in their own files ... as they are in yours. They were uncovered in exactly 5 days ... with one Marchant Calculator ... by a clerk, supervised by the sales manager.

This shows what a Marchant Calculator can really mean to you. Answers to scores of problems like these, that keep you awake nights, can be solved simply and intelligently ... without any extra help whatever.

Because anyone can run a Marchant Calculator. And ... with its unique, time-saving features ... that make it supremely adaptable to short-cutting ... the Marchant turns out 25% to 40% more figures.

It quickly clears the decks of routine figuring ... and leaves you spare time to dig-in and search-out the answers to really vital problems.



Automatic Division, Automatic Multiplication
Automatic Repeat Addition, Direct Subtraction

Try a Marchant ... in your own office ... on your own work ... at our expense. There will be no obligation whatever. We want you to see, for yourself, what a Marchant is really capable of doing for you.

Merely send the coupon, with the proper squares checked ... for a free trial, or for booklets. Or ... telephone our local office.

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Executives will be interested in the New Marchant Portable Only $125. Occupies desk space of only 6¾" x 12". Built for 8-hours-a-day heavy figuring.

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Name_____ Company_____

Address_____

Now It's the Voluntary Chain

By C. C. JOLLIFFE

Sales Manager, George F. Wiemann Co., New York

CHAIN stores do much more than offer stiff competition to independent retail stores. The old-fashioned wholesaler who for years has been supplying those independent merchants is keenly aware of chain-store activity. If the lone retailer goes down for the count, so does the old-line wholesaler.

As importers and dealers in coffee, our business takes us much into contact with all sorts of grocery wholesalers. We are perhaps in as good position as anyone to see what changes are taking place in wholesaling. To us, one of the fascinating developments is the growth of the so-called "voluntary chain" idea.

Such a movement may spring from the retailers themselves, or it may be set on foot by an interested wholesaler. In the former case, the retailers are likely to exercise some sort of control over the wholesaler, who then assumes more and more the functions of a warehouseman. If the wholesaler starts things, he will see to it that his retail outlets are tied up securely. In some cases, he will bind them to him for as long as five years.

Certainly, if the chain-store system is the ideal merchandising method results indicate it to be and the advantages of the voluntary chain are all that their various sponsors claim for them, the future would appear to hold nothing but the chain stores and those wholesalers who first fostered the voluntary chain idea.

A false feeling of security

AS A partial explanation for the previous almost unbelievable lack of attention to the vital problems created by the chain stores, it can only be assumed that the unassailed security of the average wholesaler's trade position and high community standing created a false impression of power.

Because of the wholesaler's heretofore strong commercial position, family fortunes had been created, leaving little necessity and less desire on the part of the older generation, at least, to enter the new competition. In many cases, the college-educated younger generation found little appeal in the grocery business, particularly in view of its existing problems and the apparently more inviting prospects in other fields.

Of course, no one claims that the wholesaler will be forced out immediately even if he does not change his ways. He can undoubtedly hang on unprofitably for five, possibly ten years, but inevitably the wholesaler still pursuing nineteenth century methods will drop out of the picture entirely. He may postpone his demise by developing cash and carry departments or handling specialties only, but at best he can be only as strong as his retail outlets. This process of elimination appears to leave to the wholesaler the alternative of opening his own chain retail stores or forming a voluntary chain group of independent retailers.

Offers a strategic position

WHILE it is still an open question as to whether or not the wholesale grocer would be better off to take a larger step into the chain-store field at once, the voluntary chain plan has several advantages. It provides chain-store training but leaves the wholesaler in a position to go "chain" or "independent" as the future demands.

Whether or not the voluntary chains are destined to be permanently successful, they already offer sufficient advantages to appeal to the harassed retailer. Whether fundamentally sound or not, as these voluntary chain groups become stronger and more experienced, they will demand ironclad contracts which will just as surely eliminate their retailer members as prospects for other wholesalers as if these same stores had literally become chain-store units.

Already the voluntary chains have demonstrated possibilities to indicate they may be the final answer. Prompt investigation is advisable if not essential to the wholesalers' existence.

I am thinking particularly of a middle-western wholesale grocery firm. Established for more than 50 years and now manned by the second generation, this firm based its hopes for the future on its past reputation. It watched with amused tolerance the almost frantic efforts of smaller rivals to establish voluntary chains of the earlier experimental types. Apparently secure in the thought that the retailers in the section would buy where they had always bought this firm overlooked the fact that those retailers might feel they needed help to sell what they bought.

Suddenly this firm awoke to the realization that the combined efforts of a nearby wholesaler who possessed the local franchise for a national voluntary chain, a nearby jobber who had his own voluntary chain system and a small but enterprising local competitor who had merged his business into a retailer-owned jobbing house, had eliminated a large percentage of its old customers.

The first decision a jobber has to make if he decides to try the idea is whether to form his own individual group or join one of the national voluntary chain organizations.

Many wholesalers now controlling voluntary chain local units seem to think that their present move is only a step toward the establishment of a permanent chain. For the wholesaler who feels that he may eventually control a chain store, the only reason for forming a voluntary chain group is to hold his sales volume as high as possible while he and his employes gain the necessary "near-chain-store" experience.

Policies must be kept clear

IF THAT same wholesaler permits his ultimate chain-store intentions to affect his policies so that he does not obtain the complete confidence of his retail group members, he defeats his purpose before he starts. Furthermore, the wholesaler has nothing to lose by making conscientious efforts toward voluntary chain success because he still can take the stores into his own chain later.

Essential to voluntary chain success is the support of several leading local retailers. Ordinarily, such sponsors are not difficult to obtain and the effect on other retailers is far-reaching.

One of the most important steps to be taken by the wholesale grocer forming an independent retailer cooperative group is to forget immediately that he

CHICAGO MILWAUKEE ST. PAUL AND PACIFIC

A Pageant of Progress

When, in 1805, at the Missouri River's source, Lewis and Clark met with the capricious Shoshonees, the fate of the Northwest was in the balance. An Indian princess, Sacajawea, aiding the expedition westward, discovered that the tribal chief was her brother—and progress continued on its way.

What pageantry since! Picture the venturesome pioneers and trappers, the brave Bridgers and Colters, the hostile Indians. Picture the courageous settlers creeping in covered wagons into the Dakotas and Montana, or on to Idaho and Washington. Picture the fortune-hungry thousands of the Gold Rush days, lured on by each new strike.

In this early influx, some were forward-seeing and industrious. They stayed, and sowed the seeds of agriculture and industry.

Behold now, the Northwest! Great cities and thriving communities—evidence of toil and vision. Forests possessing half the nation's timber; mountain streams with unlimited water-power reserves; millions of acres of fertile soil and pastureland; precious earth pockets holding untold stores of metal and coal; the entire broad domain, unmatched the world over for scenic grandeur—an Empire of Opportunity for ambitious men and women.

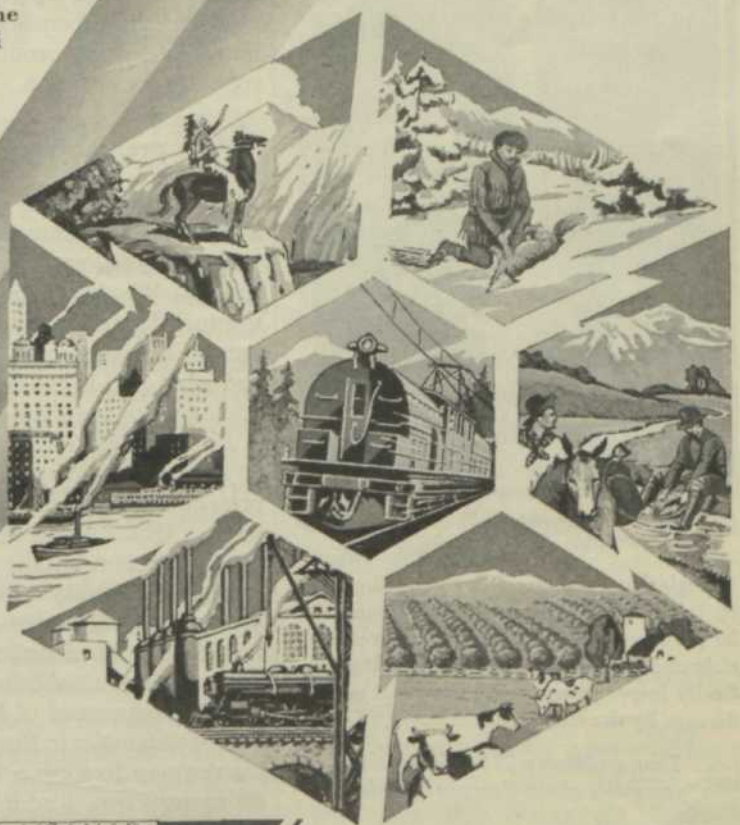
The Milwaukee Road is proud of its part in the Northwest's Pageant of Progress—happy to tell you more about it. Address The Milwaukee Road, Room 867-Q, Union Station, Chicago, for copy of "Key Notes" containing information concerning this railroad and the territory it serves.

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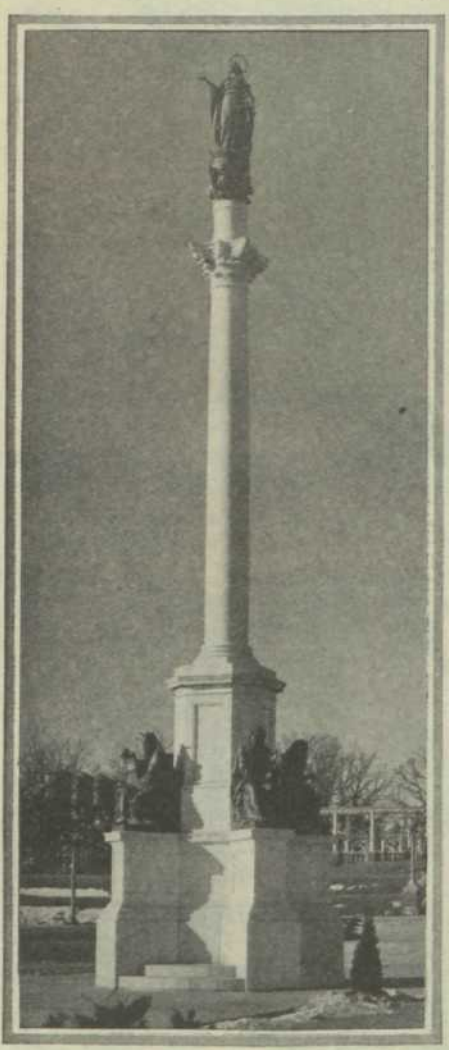
The Olympian: Chicago-Yellowstone-Spokane-Seattle-Tacoma . . . *The Pioneer Limited:* Chicago-St. Paul-Minneapolis . . . *The Columbian:* Chicago-Twin Cities-Yellowstone-Spokane-Seattle-Tacoma . . . *The Southwest Limited:* Chicago-Milwaukee-Excelsior Springs-Kansas City. . . *The Arrow:* Chicago-Milwaukee: Des Moines-Omaha-Sioux City.





As *durable* as it is Beautiful

Georgia Marble has these two essential qualities: *durability* and *beauty*.



Central Monument, Mundelein, Illinois, built of White Georgia Marble. Joseph McCarthy, Architect

Georgia Marble's durability resulting from its low percent of absorption, accounts for its growing favor with architects for memorials and permanent buildings . . . Its practically impervious quality insures it against damage by the elements.

Your architect will be glad to tell you more about Georgia Marble.

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622 Construction Industries Bldg. DALLAS — 1200 Keith Bldg. CLEVELAND

When writing please mention Nation's Business

is a jobber. To establish a voluntary chain unit successfully, a wholesale grocer must consider that his organization is to all intents and purposes merely a chain-store distributing headquarters.

If the wholesaler would forget all about profits for any three years, even at the apparent sacrifice of thousands of dollars, he might find that his business was established on a far more profitable basis at the end of five years.

While my personal idea may be too radical a departure from existing methods to appeal to anyone else, there are many examples which prove that the opposing policy cannot succeed. Far too many wholesalers operating voluntary chains feel that their duty is accomplished if they give the retailers a few loss leaders each week. They completely overlook the fact that by trying to make up such losses by adding 15, 20 per cent and even larger jobbing margins to other items, they are forcing their retailers' prices out of line and reducing volume on items on which all concerned are entitled to and can get a reasonable profit.

While any service is more difficult to sell at a stiff price, it is essential that retailers be required in some way to post a deposit to insure full cooperation. Otherwise short-sighted retailers will sacrifice future benefits for the sake of immediate small profits and thus disrupt the organization.

A prerequisite of success

THE wholesaler who expects to make a success of a voluntary chain unit must take a chain-store attitude all the way through. Why insist upon standard store fronts and signs, group advertising, modern store layouts, unified sales policies and what not, if one is not prepared to make good on the chain-store price angle.

As to lining up with a national chain or starting an independent local unit, present conditions seem to favor the former. Quick action is essential. Independent action entails time-taking investigation, study and organization. While not perfect, the national voluntary chains offer coordinated action, experience and established methods for quick development of local units.

One wholesaler in Pennsylvania made his decision to form a local group just six months ago. I addressed his organization meeting of invited retailers a few days later. Within two months the first 50 stores had their grand opening, all displaying the same signs, similar store fronts, featuring the same merchandise, and benefiting from the same advertising. In seven weeks, these 50 retailers had been organized, their old stocks cleaned out by sales, the stores remodeled, and new quick-selling items stocked. These 50 stores were to all intents and purposes modern chain stores.

A few weeks later I was present at a banquet attended by 125 of the best independent retailers in that section. They were all lined up with the group. The wholesaler confidently expects to increase this total to 250 before the end of the year.

Conditions that demand action

IF conditions in any wholesaler's territory are anything like I have described, then action is essential.

Whether he selects the Clover Farm Stores, Independent Grocers' Alliance, Nation Wide Stores, Red & White System or some other national voluntary chain or organization, unquestionably he will get action and *action is imperative right now*.

Investigation of national voluntary chain groups will show that in store arrangements, window displays, newspaper advertising and other merchandising helps, their service compares favorably with that of the leading chain stores. The saving effected by combination buying, and other features are normally far more than enough to offset franchise and other costs. Probably most important of all, the national organizations will provide the local wholesaler with experienced men to help him organize. Without a proper set-up, no local voluntary chain unit can hope to succeed.

It is essential that the wholesaler avoid a penny-wise and pound-foolish policy as to the salaries he pays to get the necessary personnel for his organization. A voluntary chain must compete with established powerful national chain-store organizations whose local units are guided by experienced superintendents.

No jobber can meet this competition by using his shipping clerk for an advertising man and he cannot make a store superintendent out of a $40 a week salesman overnight. Above all, the wholesaler needs a stump speaker, a man that can talk the retailers' language in a way to gain their confidence.

Possibly the future ideal set-up is in organization of retail outlets owned and controlled by producers and wholesalers with each individual retailer owning a 50 per cent interest in his own store. Whatever the future may hold, the wholesaler must do something and I feel that the voluntary chain, if correctly developed, presents the most logical course as conditions stand today.



Pennsylvania locomotives take water on the fly, from tanks set between the tracks. An air-driven scoop, operated from the engine cab, plunges down as the train roars over the tank. The water, speed-driven, is funneled upward into the tank of the tender. Such track tanks were early installed in this country by the Pennsylvania Railroad. In the course of a year they save, for industry and for travelers, an enormous amount of time.

$50,000,000 to get pure water for the delicate stomach of the Iron Horse

YOU can drink water that would kill the Iron Horse. Those snorting giants that drive with such relentless power along the rails have stomachs more delicate, in some respects, than a baby's. The wrong kind of water gives them, so to speak, acute indigestion.

In the mining districts, for example, sulphur water from the mines flows into nearly all streams.

When a stream polluted with it becomes slightly acid, it may still be used without apparent harm as a source of drinking water, but it would be very destructive to locomotive boilers, rendering their practical operation impossible.

In other districts the water is "hard"—contains calcium and other salts. When converted into steam it leaves a residue which coats tubes and boiler lining. Before long the locomotive loses power; if the coating continues, there may be an explosion which will mean loss of life and the finish of 500,000 pounds of expensive machinery.

Water free from calcium salts and from sulphur compounds must often be piped from long distances to the railroad. Great reservoirs in the mountains, treating stations west of Pittsburgh, wells near Washington, all form a part of the huge water system of the Pennsylvania Railroad.

Properties valued at $50,000,000 are included in this system. Twelve water companies are operated by the railroad under the general direction of a separate organization, employing engineers and chemists whose sole duty is to look after the water supply. One alone in the Pittsburgh district operates a large plant with 145 miles of piping.

All because the Iron Horse must have pure water.

It gets it—in all about 100 million gallons a day!

And the water is pure—fit for a locomotive to drink. In no other way can the trains go through swiftly, safely and on time.

PENNSYLVANIA RAILROAD

Carries more passengers, hauls more freight than any other railroad in America

LOWER *heating costs*
LOWER *first costs*
LOWER *installation costs*

Heat with Unit Heaters



The Venturafin Method of Heating for stores, salesrooms, factories, shops, garages and many other types of buildings.

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Please send me your 24-page Venturafin Book

Name_____

Address_____ City_____

VENTURAFIN
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METHOD OF HEATING

YOU can heat more economically with the Venturafin Method of Heating. Here are the reasons:

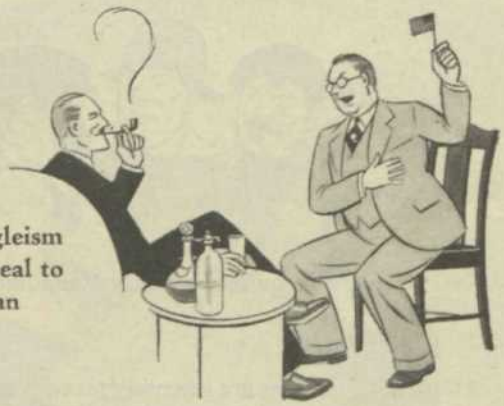
1. Venturafin Units can be installed with fewer fixtures and fittings.
2. Venturafin Units force heated air directly where it is needed. They give positive heat control and eliminate wasteful heating of ceiling areas without first heating working areas.
3. Venturafin Units are adaptable to practically any position without loss of efficiency. They can be mounted on wall or ceiling with ordinary ¾-inch hanger pipes, an exclusive American Blower feature—or they can be used as a floor stand unit with a recirculating box. Venturafin Units are furnished with individually adjustable louvres which permit the forcing of heated air in any or several directions simultaneously.
4. Venturafin Units are practically indestructible. They are equipped with non-corrosive steam heating coils—the well-known Ventura fan manufactured by American Blower—and an electric motor made by the world's largest motor manufacturer—all housed in sturdy, die-formed, beautifully finished steel case.

There are many other reasons, too, why the Venturafin Units cost less to buy, install and maintain . . . why they offer unusual economies in heating factories, shops, stores, garages, and many other types of buildings.

Phone your heating contractor. He will be glad to tell you more about the Venturafin Method of Heating and to show you how you can materially reduce your annual heating costs. Or, mail the coupon. No obligation either way.

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CANADIAN SIROCCO CO., LTD., WINDSOR, ONTARIO
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VENTILATING, HEATING, AIR CONDITIONING, DRYING, MECHANICAL DRAFT



Spreadeagleism doesn't appeal to the Canadian

Canada Is a Foreign Country

By FLOYD S. CHALMERS

Editor, The Financial Post, Toronto

ILLUSTRATIONS BY J. D. IRWIN

WHEN a Canadian gets into conversation with an American business man the discussion is likely to veer around to the subject of tariff relations of the two countries. When it does, the American is certain to ask one question.

The monotonous regularity with which this question was put to me by American business men and politicians on a recent visit to Washington suggested that it may be a stock conversational prop, like the weather or the World Court. But I think there is more to it than that. Americans feel a genuine curiosity about this long-standing mystery, for mystery it is to them:

"Why did Canada reject the Reciprocity Pact in 1911?" The smart rejoinder to that question is, "Why did the United States found the League of Nations and then refuse to join it?" For a set of political developments quite different from, but nevertheless suggestive of, President Wilson's troubles with a hostile Senate majority entered into Canada's rejection of reciprocity after its long and friendly negotiations to obtain it. But one other important reason for Canada's action stands out.

This was an unfortunate remark of James Beauchamp Clark, then Democratic leader in the House of Representatives, but shortly to become more famous as "Champ" Clark, speaker of the House. Mr. Clark, bursting forth in the excess of his enthusiasm for a tariff policy that had been so long a part of the Democratic platform, although now introduced by a Republican President said:

"I am for reciprocity because I hope to see the day when the American flag will float over every square foot of the British North American possessions, clear to the North Pole. That is the way things are tending now."

Ammunition to their liking

THERE was an election in Canada shortly after that and the issue in that election was increased trade relations between Canada and the United States. Mr. Clark's remark was just the ammunition that the opposition party in Canada, which was fighting reciprocity, required. It smeared that statement over every bill board in Canada to reinforce its own demand that Canada should have "no truck or trade with the Yankees."

A prowling tiger decorated the billboards and its stripes spelled "annexation" and President Taft's statement that "this annexation talk is all bosh" did not catch up with Champ Clark's imperialism. Reciprocity went down with the government of the day in Canada and Mr. Clark helped in the defeat. Canadian Pacific Railway stock jumped six points in London, which may have indicated world opinion that Canada did the right thing or may have indicated British opinion that the danger of Canada being swallowed up by that prowling American tiger had passed.

Champ Clark was a politician, who spoke as a politician, but he was a politician with something to sell. He wanted to sell a reciprocity treaty to Canada; but he misjudged Canada and



Canadians hear American broadcasts, buy American papers and refrigerators

utilized the wrong sales approach. He did not make his sale.

There are still many men in business who are making just as serious blunders in trying to sell in Canada.

A couple of years ago on the morning of July 4 there appeared in Canadian newspapers an advertisement headed something like this:

"The Tootsie Gazzett on your car will help make this holiday more enjoyable."

Canadians nursing the sprains and mosquito bites of their own July 1 national holiday only know of the existence of the Fourth of July from the large numbers of American tourists on the streets of Canadian border towns.

A perennial blunder

YET hardly a year passes that some American advertiser, selling in both United States and Canada, and using the same advertising plates in newspapers in both countries, does not put out a Fourth of July advertisement headed "A Declaration of Independence." Occasionally the Canadian newspapers wisely try to save the advertiser's face by routing out the American flags in the border decoration or even leaving out the advertisement entirely.

Canadians celebrate their Thanksgiving day early in November and do not eat turkey again until Christmas day. But American advertisers, who have their copy prepared in New York or Chicago without the cooperation of a Canadian advertising manager or agency, very often use the turkey motif in Canadian papers toward the end of November.

Canadians are rather proud of Edward Johnson, the famous tenor of the Metropolitan Opera Company. Long repetition of the statement that he was "American-born" has failed to alleviate their irritation at this denial of his Canadian birth.

They are less peeved by references to Mary Pickford as the great American-born film actress but only marginally so.

Canadians love "Lindy" and gave him a great reception on his one visit to the Dominion. But they become warmly resentful when they see advertisements or hear visiting orators making reference to Lindbergh as the first man to fly the Atlantic. Canadians are intensely proud of the fact that the first persons to fly the Atlantic were two Britishers and that they made the trip eight years before Lindy. Canadians did not need to be told by Ripley of the New York *Evening Post* that Lindy was the sixty-seventh person to fly the Atlantic.



Canada is quite distinctly Canadian

It is safe to say that more than 95 per cent of the stamped addressed envelopes sent to Canadian prospects by American direct-mail advertisers are stamped with American stamps. I know one free-lance writer in Canada who never has to buy American stamps to include with his manuscripts sent to American papers. He merely steams off the stamps he gets gratuitously from American advertisers. The number of stamps wasted by being sent to Canada is diminishing with the advent of C.O.D. postage in the United States. But do American advertisers know that Canada will not accept for mailing a letter with an American C.O.D. postage mark unless it also carries a Canadian stamp?

A United States government publication not long ago started off a review of Canadian conditions with the phrase, "Economically and socially Canada is a northward extension of the United States." Now, this statement is not entirely true and when an American business man accepts it as gospel and proceeds to lay his Canadian advertising and selling plans on the foundation of this premise he is apt to make some stupid mistakes and to offend rather than win over the Canadians. Canadians are patient but they resent any implication by word or deed that they are enclosed by the economic or social—if not the political—boundaries of the United States.

When the Canadian dollar was at a discount the American concessionaires at an amusement park outside Detroit, but on Canadian territory, refused to accept Canadian money from merry-makers thronging their booths. Most of the visitors were American but the occasional Canadian would have been justified in running berserk at having the coin of the realm refused on Canadian soil even though he might have accepted with patient grace the fact that all the flags visible in the park were American flags.

Canada is not an American country. An American newspaperman asked me the other day, "Are Canadians unfriendly to Americans?" I really do not know how he could have gotten that impression when he knew that Canada is the largest customer of Uncle Sam; that we read millions of American magazines and newspapers every year; that we dangle metaphorically in the arms of American screen actresses; that we welcome the newest American ideas in luncheon clubs, automobiles and stage plays; equip our homes with American refrigerators; listen to American radio programs; follow the victories and defeats of American baseball teams, and stay up nights to hear who has been elected President.



American concessionaires at the Canadian park refused to accept Canadian money

A friendly people

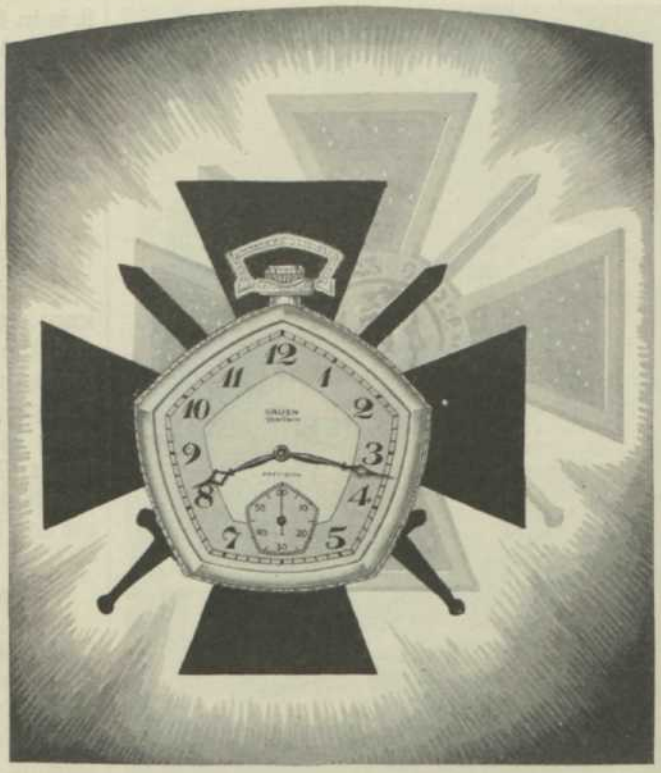
NO, Canadians are not unfriendly. Most Canadians are like most Americans; that statement is broad enough, I think, to cover the situation and still leave room for the exceptions that may exist because of an occasional stupid American or prejudiced (because stupid) Canadian.

But American influences are not dominant in Canada, and

Among those who have been presented with the Croix de Guerre for American Achievement

GEN. LINCOLN C. ANDREWS
ADMIRAL W. S. BENSON
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MR. P. E. MARTIN
MR. GRAHAM McNAMEE
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GEN. JOHN J. PERSHING
MR. FRANK A. SEIBERLING
MR. CHAS. FULLER STODDARD
HON. JOHN W. TOBIN
HON. W. A. WALSH
MR. JOHN B. WILLIAMS



Who in *YOUR* organization deserves

The Croix de Guerre for American Achievement?

In other countries, men of unusual achievement are awarded special insignia of merit. France has its Croix de Guerre, its Legion of Honor; England its emblems of knighthood.

In democratic America, there are no such government awards. But American Business, seeking its own emblem of accomplishment, has everywhere adopted the Gruen Pentagon Watch.

A timepiece so frequently presented by individuals and groups to honor successful Americans, that it has been justly called *"The Croix de Guerre for American Achievement"!*

Important among reasons for this recognition is the Pentagon's distinctive shape—in itself suggesting a medal of honor. This shape is patented by Gruen, protected from imitation.

Thus the Pentagon is more than just a fine watch. It is at once a Guild timepiece of exceptional quality and a *recognized emblem of merit.*

Have you a problem of awards? Are there men in your organization for whom you seek a gift to honor their achievement and spur on their fellow-workers to similar success?

Surely you will want no ordinary gift. Why not present this watch with its special meaning, established and recognized everywhere as *"The Croix de Guerre for American Achievement"?*

PRECISION
Trade Mark Reg.

Every Pentagon carries this GRUEN pledge mark, placed only upon watches of finer quality, accuracy and finish. Made only in the Precision workshop

This emblem is displayed only by jewelers of high business character, qualified members of the Gruen Guild

GRUEN WATCHES

Your Gruen jeweler can show you the Pentagon in both the VeriThin and Ultra-VeriThin models.

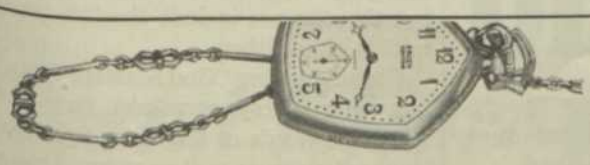
We will gladly give you his name and address together with industrial presentation plans for the Pentagon Watch, including special inscriptions. Just mail the coupon below.

GRUEN WATCH MAKERS GUILD
TIME HILL, CINCINNATI, U. S. A.
Branches in various parts of the world
Engaged in the art of making fine watches for more than half a century

GRUEN WATCH MAKERS GUILD,
TIME HILL, CINCINNATI, OHIO.
Please send me details of Industrial Presentation for the Gruen Pentagon Watch, also name and address of the Gruen jeweler nearest me.

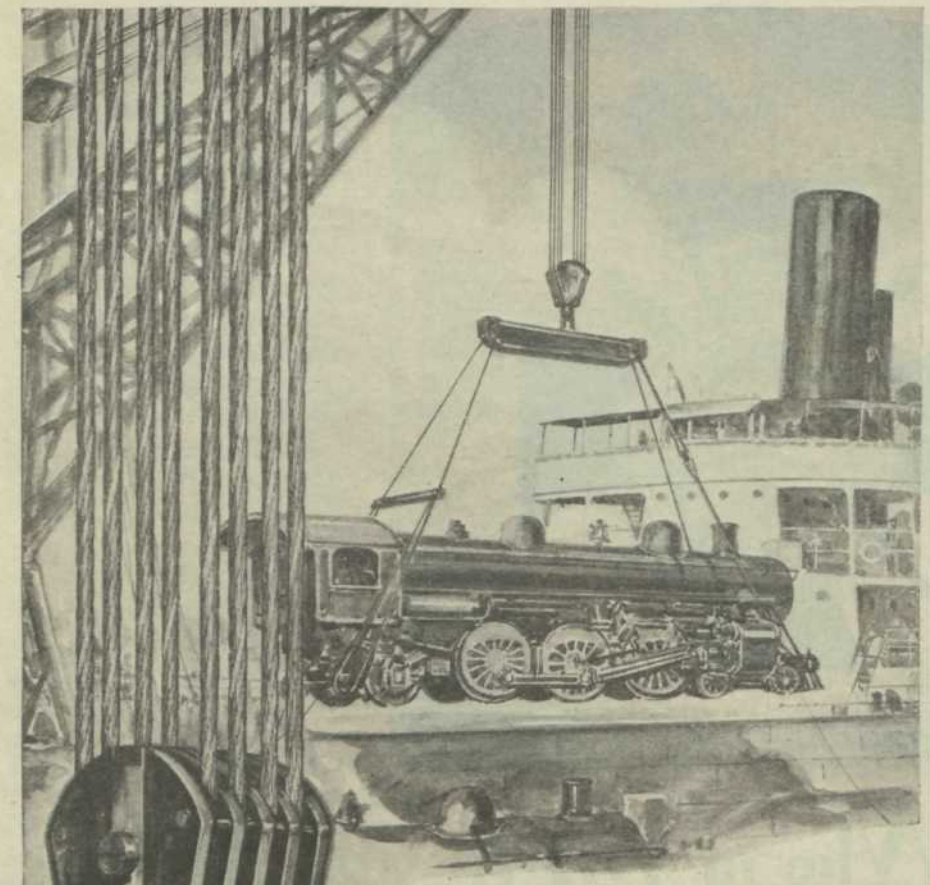
Name.....

Address.....



Inspired by the prestige of the Gruen Pentagon, the R. F. Simmons Company has created this special Simmons Chain





When Locomotives Go to Sea

These immense and powerful rail travelers are so helpless when they put out to sea that they have to be picked up bodily and placed aboard ship.

And the lifting is done with wire rope, the only suitable appliance having sufficient strength and flexibility in small diameter.

Where the work is heaviest, there you generally find that the rope has *one strand of yellow*, the distinguishing mark of Yellow Strand Wire Rope. Imported steel wire and over a half century of wire rope making experience, put Yellow Strand far above the ordinary. And there it has remained for many, many years.

The pioneer manufacturers of Yellow Strand also make all standard grades of wire rope.

Specify "Yellow Strand" in your next requisition.

BRODERICK & BASCOM are pioneers in the manufacture of wire rope. Starting over fifty years ago, they made wire rope by hand, and later installed the first wire rope making machinery between the Allegheny and Sierra Nevada Mountains.

During all those years, but one thing has been made—wire rope, and that of the highest quality.

BRODERICK & BASCOM ROPE COMPANY
845 North First Street, St. Louis, Mo.

Eastern Office and Warehouse: 68 Washington St., New York City
Western Office: Seattle
Factories: St. Louis and Seattle

Authorized Dealers in all Industrial Localities

Yellow Strand WIRE ROPE

M447R23

When writing to BRODERICK & BASCOM ROPE COMPANY *please mention Nation's Business*

it is in failing to recognize this that so many American business houses fall down. More than half of the population of Canada comes from British stock. A quarter of the population comes from French stock. There are three times as many people in Canada who were born in the British Isles as were born in the United States.

Canada is not English; it is not American; it is not French. It is Canadian and and the Canadian individuality combines qualities drawn from Britain, France and the United States, with some infiltration of ideas from other lands. The Canadian individuality stands out in business, in literature, in art and in politics.

Proud of their heritages

CANADIANS speak proudly of their inheritances from Britain. Canadians are boastful that they adopt the British practice of hanging murderers instead of starring them in stage plays. They rejoice in their parliamentary system which had its origin in British practice. Canadians speak as proudly of Magna Charta as the American does of the Declaration of Independence. Canadians revere Westminster Abbey as the New Englander reveres Plymouth Rock. For Canada, the war began in 1914 and not in 1917.

Canadians wear British woolens even though they may cut them in the style of Broadway actors. They enjoy American-inspired types of breakfast foods but they are likely to finish the first meal of the day with a cup of tea in the English style.

They will hum the latest Broadway hit but crowd the theaters to see an English light opera company. They know who is president of the United States but they know also who is prime minister of Britain.

Canadians like Virginia tobacco but want it made up into English type cigarets. They start dinner with American cocktails but choose Scotch and soda as the "continuing drink," in the English fashion.

Canadians are probably the only people in the world who understand and use both London and Broadway slang expressions. Canadian universities take their theoretical economics from Oxford and their applied economics from Harvard. Canadians do not refer to American products in the stores as imported but they do not include English goods in that class either.

Canadians sing "God Save the King" but, on courtesy occasions, they can recall the words of the "Star Spangled Banner" quite as well as many Ameri-



AT THE TOUCH OF HER HAND

THE POSTAL KEY SETS IN MOTION A SERVICE THAT REACHES AROUND THE WORLD

HER NAME IS LEGION... and yet every day she is becoming of increasing importance to American business. She is conscientious — faithful — capable — often inspired by the swift changes in the quickening tempo of American business.

And as her hand turns the Postal key in many an office all over the country — she never ceases to wonder at the forces she sets in motion.

The enlarged Postal Telegraph through the affiliated cables and radio of the International System makes possible instant communication on land or sea. To Europe, Asia, the Orient and the countries of Central and South America, to ships on the Atlantic and Pacific, your Postal Telegrams are extended.

Postal Telegraph service insures speed, accuracy, reliability, economy. It offers, also, the certainty and the privacy only the telegraph can give. Instant attention of the recipient. A written record of the message.

Postal Telegraph

TELEGRAMS · CABLEGRAMS · RADIOGRAMS

Commercial Cables *All America Cables* *Mackay Radio*

"Y and E"

The "Y and E" trade mark is the symbol of 49 years' leadership in the office equipment industry. It is the mark of quality—high standards of workmanship—integrity of purpose—constant service to customers.



Control a *hundred* salesmen as easily as *one*

THE Sales Manager who uses "Y and E" sales records has his entire organization in the "hollow of his hand". He knows the number of calls, the territory covered, the lost motion or the productivity of every man. A glance tells the whole story! He keeps control of every man in the field.

Phone for the "Y and E" Representative

"Y and E" ready-made sales systems fit most businesses, or special forms can be quickly designed if needed. Phone or write the "Y and E" store in your city or write us, and a trained representative will give you immediate service—without obligation to you.

YAWMAN AND ERBE MFG. CO.
828 JAY ST. ROCHESTER, N.Y.
Canada: The Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Export Dept., 368 Broadway, New York, N.Y., U.S.A.

"Y and E" OFFICE EQUIPMENT

STEEL AND WOOD FILES ✓ STEEL SHELVING ✓ DESKS ✓ SAFES ✓ OFFICE SYSTEMS AND SUPPLIES ✓ ✓ BANK AND LIBRARY EQUIPMENT ✓ ✓

When writing please mention Nation's Business

cans. The Canadian schoolboy can name the states of the Union but he also knows the counties of England.

The American manufacturer who would sell in Canada must know more than freight rates and customs schedules. He must understand the Canadian mentality; its likes and dislikes; its enthusiasms and its prejudices.

Some of the largest American companies have been enormously successful in Canada. Where they have sold staple commodities such as steel, coal, raw cotton and crude oil, they have merely had to consider economics and not psychology. But when they offered motor cars, luxury goods, household appliances, and such merchandise embodying novelty and style, and where their job has been to create a market rather than just to fight for orders in a well established market, they have won or lost accordingly as they have adapted themselves to Canadian ways.

There is no danger of General Motors ever making serious selling blunders in Canada. It is run by Canadians. Its far-flung Canadian organization was built upon the foundation of a Canadian carriage plant and the owner and the founder of the carriage plant is president of the company.

Ford Motor of Canada is run by Canadians. Canadian General Electric Company was established by Canadians before Schenectady took over control and the American company still lets the Canadian executive manage it. These and several hundred other American firms have branch plants in Canada, plants manned with Canadian staffs.

Where the Canadian business is not yet large enough to warrant a Canadian manufacturing and selling organization it is more difficult to do in Canada as the Canadians do. But it must be done.

Studying Canadian habits

LARGE American advertising agencies are beginning to recognize this need for study of Canadian consumer habits. Several of them have established Canadian offices, some with Canadian staffs. Still others have entered into working agreements with Canadian advertising agencies.

The Canadian has many qualities that are also American qualities. On the average, he is alert, progressive, a booster, slightly jazz-struck, wanting what's new although a little slow to accept the unproven. He loves Uncle Sam but watches him "keerfully," and he magnifies the importance of the slightest tendency to "spreadeagleism." He will buy something because it is English and his wife will buy something because it is French, but neither will buy anything simply because it is American.

To put it as bluntly as briefly, the Canadian consumer prefers the American to consider him a foreign buyer rather than as one of the home market.

What the Plane Means to Alaska

ALASKA, with one airport for every 908 inhabitants, is the most air-minded territory on the globe, Gov. George A. Parks, of Alaska, asserted in a recent speech before the San Francisco Chamber of Commerce.

The territory, with a population of 60,000, now has 65 airports and is devoting approximately $100,000 a year to the extension of the system.

"To Alaska, the development of the airplane means immeasurably more than it does to any other state or territory in the United States," Governor Parks said. "By dog team the trip between Fairbanks and Nome requires around 30 days; by airplane it is traversed, day in and day out, in six and one-half to seven and one-half hours. The trip to Point Barrow, on the Arctic Ocean, from Fairbanks by sled, requires six weeks or even more in summer. By airplane the elapsed time is never more than five hours."

To people in the many isolated sections, Governor Parks continued, the airplane literally has been a life saver. Heretofore illness in these regions has been serious indeed, but now doctors, nurses and vaccine can be carried to isolated spots within a few hours.

The vital place the airplane commands in the Alaskan scheme of transportation has led the Territorial Road Board to devote from 30 to 50 per cent of its annual road money to the development of landing fields, but the Board by no means is required to bear all this burden. In every case the residents of neighborhoods where fields are located contribute either in money or in labor realizing as they do its importance to their individual and community welfare.—P. H. H.

THE *Profit spectrum* *is a Market guide*



Do You Know Your Market?

An editorial by
W. C. Dunlap, Vice President
in charge of sales
The American Multigraph Sales Co.

EXAMINE your range of markets through the prism of close analysis (as so many executives are doing nowadays) and you will find that it presents as many shades of color as a refracted ray of light. You may find, also, that a disconcerting share of those markets shades off toward the red end of the spectrum—a discovery that has its illuminating side if you are one of the many executives faced with a situation of profits which do not keep pace with volume.

Business today is definitely facing the fact that markets vary in value. Selling, to be successful, must be selective. It must devote the major portion of attention to those markets covered by the upper portion of the profit spectrum and avoid those markets that shade "into the red."

The market variations which govern profit variations may be of several types—geographical, vocational, financial, or many others. Whatever they are, it is the responsibility of management to discover them—and to discover how to concentrate sales effort in those markets whose shade of profit is near the top of the spectrum.

In planning our own sales activities we have met this situation by means of careful market analysis coupled with the development of new Multigraph equipment which simplifies selective cultivation of preferred markets.

Our policy of selective concentration has brought about a very decided increase in our net profit. It has reduced our selling expense, and, although the number of prospective customers kept on our mailing list for active cultivation has been materially reduced, our volume of sales has increased.

Executives who would be interested in more detailed discussion of our approach to the problem of finding and cultivating the fruitful markets for our product are invited to write. Please address W. C. Dunlap, 1806 E. 40th St., Cleveland, Ohio.

There is a new **MULTIGRAPH** *for today's new selling conditions*

When writing to The American Multigraph Sales Co. *please mention Nation's Business*

Looking On in Washington

(*Continued from page 50*)

tions which, for any given agricultural commodity, shall be dedicated "to effecting the economic distribution of the commodity among the various markets and to minimizing waste and loss in the marketing of the commodity."

Membership in these "clearing-house associations" is regulated by the law in the following language:

"Independent dealers in the commodity, as well as cooperative associations handling the commodity, shall be eligible for membership."

That is what the law contemplates, or, at any rate, sanctions. Mr. Teague objects. He stated his objection to the Committee on Agriculture of the House of Representatives when the law was being framed. He said he already had acquired experience with clearing-house associations composed of independent speculative dealers and of agricultural cooperators together. He said that such associations had always failed. He expressed the view that they would always continue to fail. He held that the grower and the dealer had diverse and conflicting interests and could not be welded into one interlocking unit.

His idea plainly was that the agricultural cooperator must pursue his own path, controlled entirely by himself, as far as possible toward the consumer. Mr. Teague thus represents not only capable agriculture but also an agriculture determined to project its own special type of cooperative business organization into the commercial currents of the American business world.

♦

IT MAY thereupon be added that Mr. Teague's fellow peasants on the new Federal Farm Board seem, like him, to be fairly well prepared for agriculture's coming high business adventures through broad present and previous familiarity with large-scale business dealings. It is a paradox, but it is true, that this Board is more a board of business men than any other board or commission in Washington. Let us examine, for instance, the record of the Board's chairman, Mr. Alexander Legge, of the International Harvester Company.

Mr. Legge happens to look rather more like a farmer than the farmers who sit with him on the Board.

One of his strengths is that, looking so agricultural, he does not look much like what he also really is, which is unerringly diplomatic.

He does not take his chairmanship of the new Board with any side, except that he is said to contrive somehow to sit rather at the side of the table than at the top. He does not seem to think that he is to dominate the Board but rather, that he is to elicit its ideas and perhaps channel them to a conclusion.

He is a listening leader. There might have been a beatitude saying "Blessed are they that listen, for they shall be heard." Mr. Legge, 12 years ago, in our War Industries Board, without being chairman, was heard indeed. He is being heard again in the Federal Farm Board not because he is chairman but because he is he.

♦

ALL THE other members of the Board are cooperative agricultural marketers, except the ex-officio member, Arthur M. Hyde, the Secretary of Agriculture. It is a settled political truth that a Secretary of the Treasury should not have banks but that a Secretary of Agriculture not only should but must have farms. Mr. Hyde has them. He also has an amused and amusing temperament.

He further has one thing in which the new Board is on the whole rather wanting. He has a knowledge of politics which should be peculiarly valuable to the Board when it faces the political storms which inevitably will fall upon it.

Mr. Hyde is really a most admirable assemblage of qualities. He is sophisticated and sincere, lightly witty and solidly able, political and conscientious.

Then there is Mr. William F. Schilling, a director of Land O'Lakes Creameries, Incorporated, a member now of the new Board, and additionally president of the Twin Cities Milk Producer's Association, which handles daily one million pounds of milk. It is manifest that Mr. Schilling is certainly as much business man as milker.

A similar characterization must be made of Mr. James C. Stone, of Kentucky, director of a national bank, director of a joint-stock land bank, producer of live stock, tobacco expert and magnate, and president of the Burley Tobacco Growers Cooperative Association, which at its prime seems to have done a business of some $50,000,000 annually. It is in abeyance now through trade conditions which have not in any way impaired Mr. Stone's reputation as one of the most competent of the many business men who recently have been shucked out of the shells of their privacy and served up on the federal government counter.

Mr. C. B. Denman, as a member of the new Farm Board, represents steers, and sheep, and hogs. These animals, on the whole, have been doing pretty well in the market. It is said to be difficult for Mr. Denman to think up anything for the Farm Board to do for them. He comes pretty near to being a grower without a grievance.

He does his growing in Missouri in a "show me" spirit, to which the buyers of live stock have responded; and he has been president of the National Live Stock Producers' Association which represents annual cooperative live stock sales in a volume of $150,000,000.

A lone Easterner gives to the new Board a faint recognition of the thirteen states which took the trouble to initiate the Federal Government. Mr. Charles S. Wilson, of New York, is in fact the only Board member hailing from eastward of the meridian of Detroit.

That leaves only Mr. Carl Williams, of Oklahoma, to complete this summary of the new Board's present personnel.

♦

"Carl." Scholar. Editor. Haranguer. Arouser. Organizer. Philosopher. Destined to be—to agriculture and to the country—the Board's chief interpreter.

Fifty-one years old. White-haired. Outliver of sickness long and tragic.

Insatiable searcher for facts and ideas. Long a newspaper reporter. Student, in Colorado, of dry farming. Organizer then of dry-farming congresses. Editor now for 15 years of the *Oklahoma Farmer-Stockman*.

Organizer of cooperative wheat elevators and cotton gins. President of the Southwest Wheat Growers. President of the American Cotton Growers' Exchange. President of the American Agriculture Editors' Association.

His religious mother, when he was a boy, got him into preaching in churches. He preaches yet. He preaches agricultural cooperation, and he brings to the Board the dust of the scholar and the fire of the prophet.—WILLIAM HARD.

Raleigh
Cigarettes



Blended puff-by-puff



Twenty Cents {PLAIN OR TIPPED}

and if they cost twenty dollars they couldn't please more people nor please any people more

BROWN AND WILLIAMSON TOBACCO CORPORATION, *Louisville, Kentucky*

If you thought 'single' balloons made driving smoother wait till you ride on the DUAL-BALLOON!



"Water Carriers in India." Painted by Walter Klett for The General Tire and Rubber Co., Akron, Ohio

The New GENERAL DUAL-BALLOON 8

–goes a long way to make friends



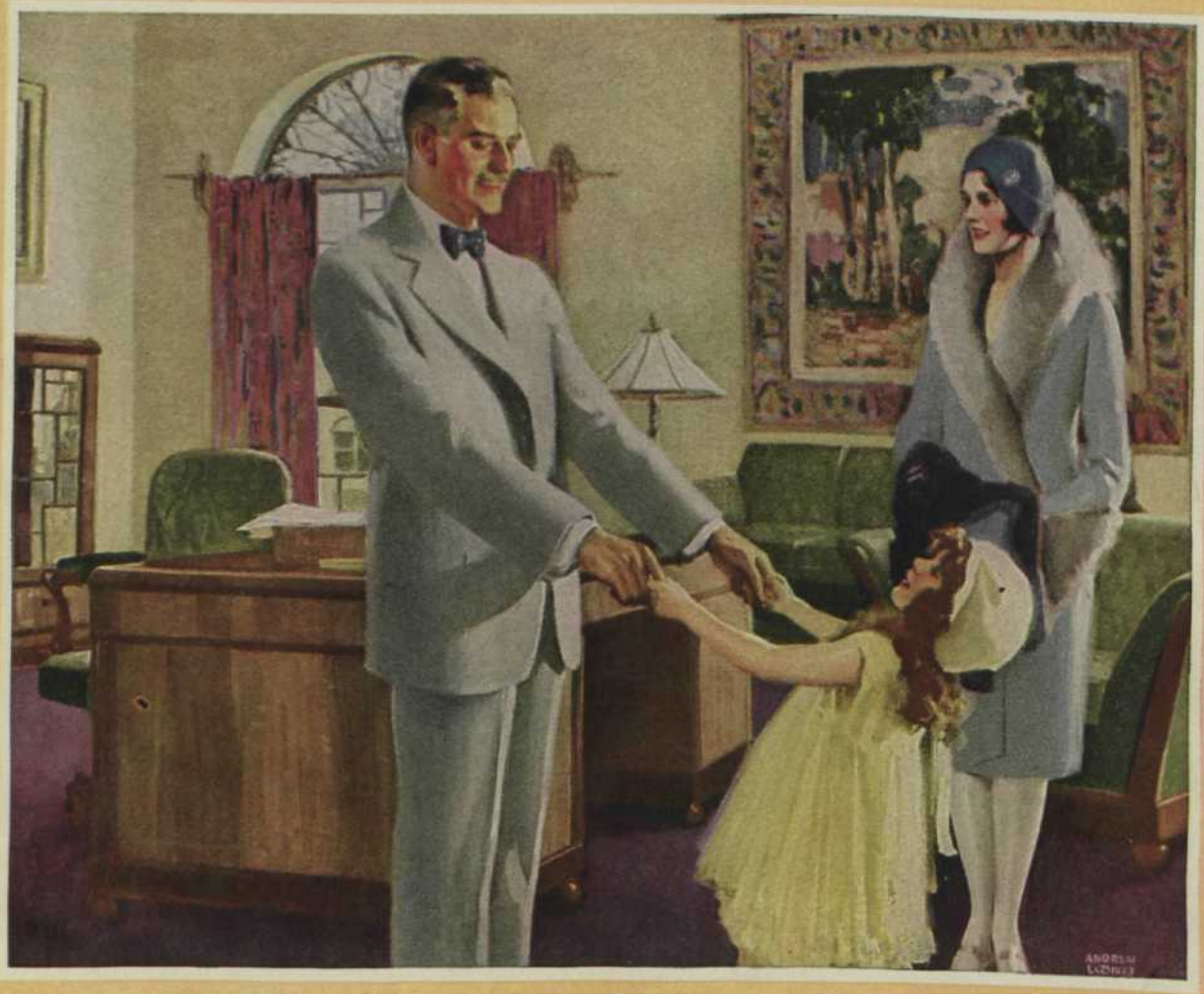
Both Coast Lines As Viewed From the Airplane "See All"

WHY explore without a chart? This map gives the experience of other navigators. There, a desert continent with a perilous coast; the city of Bargain, always found to be a mirage. Here, on this shore, harbors of safety, ports of quality. Why explore at all? Grinnell is known for the best and most dependable products for progressive buyers of industrial piping.

1. **Thermolier** the copper unit heater. A better and cheaper means of heating many types of industrial and commercial buildings.
2. **Pipe Fabrication.** Pipe bends, welded headers and the Triple XXX line for super power work.
3. **Cast Iron Pipe Fittings** perfectly threaded, accurately machined and rigidly inspected.
4. **Pipe Hangers** featuring easy adjustability after the piping is up.
5. **Humidification Equipment.** Complete systems employing the unique automatic control, Amco; furnished through American Moistening Company, a subsidiary.
6. **Automatic Sprinkler Systems** the world's largest sprinkler manufacturer and contractor.

GRINNELL COMPANY

The famous Grinnell Quartz Bulb head is far quicker to operate than old fashioned solder heads. Its operating element is proof against corrosion and loading. Another fire protection feature is the new Simplex dry-pipe system which brings sprinkler protection to many classes of property that up to now have been denied its many benefits. Write us today for further information on any of these products or services. *Address:* GRINNELL CO., Inc., 401 West Exchange St., Providence, R. I.



ANDREW LOOMIS HERE PORTRAYS THE SENATOR SUITE BY LEOPOLD
beautifully grained French Walnut, with inlays of Brazilian Rosewood, resulting in an office of rare charm

Is your office in keeping with you?

Many of America's executives are recreating their offices. They are replacing the out-of-fashion desk and chairs with an office assembly that makes the day after day and week after week work more pleasant—more restful—and more profitable. These modern offices—real creations of beauty—subtly add to the prestige and business of the executives who create them. They actually reflect the true personalities of their occupants.

Leopold—designers and builders of office furniture—is the leader in the modern office development. Leopold furniture is correct in detail—in period—in style. It is the kind of furniture that you are proud to own and use. It is designed by artists and built by master craftsmen.

You'll be interested in the new brochure "The Modern Office"—it contains detailed descriptions and full color reproductions of the Senator Suite. Gladly sent to executives on request.

THE LEOPOLD COMPANY

BURLINGTON, IOWA

BUILDERS OF FINE DESKS AND OFFICE FURNITURE SINCE 1873

Preserving America's Human Assets

By HENRY G. LANGWORTHY, M. D.

Treasurer, Foundation Fund, Inter-State Post Graduate Medical Association of North America

DECORATION BY G. LOHR



AMERICAN business is fast awakening to the tremendous economic waste resulting from injuries, sickness and deaths.

With that awakening is coming preventive action—action that is bringing a new alliance between business and medicine

THE PRACTICE of medicine today may be regarded as a vital public utility function well regulated by law and well managed by physicians, hospitals and social agencies. It is a public utility function like that of supplying water, gas or light because "one out of every four families in the country will have at least one serious illness in the course of a year," and two per cent of the population is at all times too ill to work.

Dr. Homer Folks estimates that this illness will cost the country $15,000,000,000 a year. Of that enormous amount, however, only about $2,000,000,000—the same total as is spent for public education—will be paid directly by the afflicted families. With it, according to Dublin, they will maintain an army of approximately 150,000 physicians, whose average net income is a little more than $3,000 a year; about 50,000 dentists with a similar net income; 140,000 nurses doing private bedside work and averaging $1,500 a year; and 250,000 practical nurses and various other employes with an average annual income of $1,000 a year. The total annual income of those in this first group concerned in caring for the sick totals more than $1,000,000,000.

The cost of hospital service covering 860,000 beds adds $500,000,000 and the cost of medicines and drugs is another $500,000,000. These figures are necessarily rough but they are further borne out by the study of life insurance companies in outlining a budget for a working man's family. The companies estimate that the average family spends $80 a year for sickness; the 27 million families of the country therefore would spend more than $2,000,000,000.

The worker and his family know only too well the heavy cost to them of a single day's loss of wages through illness or accident to the head of the family. How can business really estimate its loss and answer the question, "What is sickness really costing and how can it be prevented?" If the medical profession can answer this question clearly it will have the immediate attention of the biggest executives in the world.

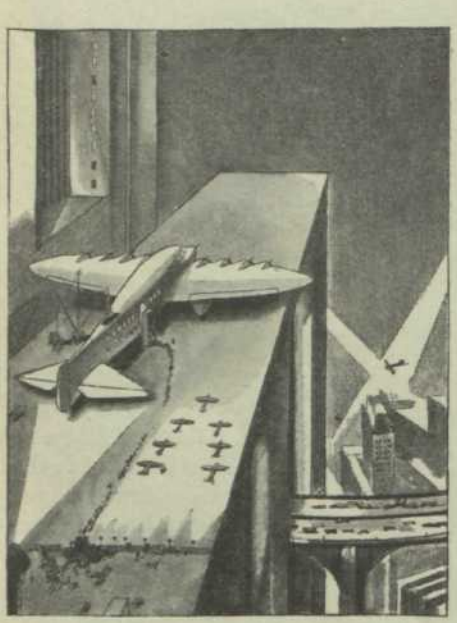
There is no doubt there is a loss. Irving Fisher, professor of economics at Yale University, in an article last January said:

"I know of a corporation doing a national business one fourth of whose force is now suffering from the Flu epidemic and in consequence its current earnings on its common stock have shrunk, for the time being, one-third to one-half."

February 8, 1929, the board of governors of the New York Stock Exchange voted to suspend trading, giving as its principal reason the fact that influenza had so ravaged the personnel that many big firms were unable to get their books in shape without this respite.

The United States Public Health Service reports that the rate of sickness from colds and bronchitis in a typical small American city is 419 per 1,000 persons a year. Dr. Volney S. Cheney, medical director of Armour and Company, finds that 45 per cent of absenteeism among

Can your Airport cope with Tomorrow's Traffic?



AUGUST 15, 2029 A. D. . . . New York at midnight . . . and the Orient Express is clearing for the East . . . steamer baskets and bon bons, cheers and the blare of a band . . . Excitement on after-decks where giant cranes swing crated sport planes into cargo holds . . . sudden glare of aerial bombs warning night traffic above the city . . . The Orient is going out . . . Chicago at 1 A. M. . . . racing the dawn into the Golden Gate . . . Honolulu in the hot midmorning . . . Victoria Peak at Hong Kong in the dusk . . .

America today lays the foundations of its future titanic airways system. The airports which our organization designs will mark the air metropolises of tomorrow . . . To this end, our staff of experts is prepared to cope with every airport problem, offering you the mature knowledge of practical experience.

Our airport functions include:—

FINANCING
ENGINEERING
CONSTRUCTION
OPERATION

AMERICAN AIRPORTS CORPORATION
527 Fifth Avenue, New York

Write for descriptive Circular B-1

When writing please mention Nation's Business

workers is caused by colds and respiratory affections.

The industrial captain is beginning to realize as never before that every dollar he spends in reducing absence from sickness, accidents or colds, saves many dollars for his corporation.

The Bethlehem Steel Corporation has amply demonstrated this fact. In its annual report for 1928 it said:

"In the Bethlehem plants last year the number of accidents was reduced 28 per cent, the number of fatalities reduced 35 per cent and the amount of time lost because of accidents, 24 per cent. All this preventive work resulted in a rate of operations and earnings higher than in any year since 1917."

From this it appears that health has a direct relation to profits, and, if illness can truthfully be said to hamper industry, what part does death play in the final balance sheet?

What's a life worth?

DR. HUEBENER, professor of insurance at the University of Pennsylvania, said recently, "American lives will soon be worth about six times as much as the total national property." He also says that "unnecessary deaths of adults now cost this country $3,000,000,000 a year."

A few years ago business paid little attention to the cost problems of injury, sickness and death but now, in its efforts to eliminate and stop economic losses, it realizes the growing importance of medicine. This interest is indicated by the medical and health legislation now pending.

The number and scope of these bills is so great that they are engaging the attention of the greatest economists of the land. Workmen's Compensation Acts, legislation associated with past military services and the charitable state or federal aid for care of citizens, open a tremendous field for study.

The avoidance of economic waste through saving individuals for usefulness is certainly looming before us as never in the past. We see this clearly in the statement of the goal of the Gorgas Memorial which is "to save the 750,000 lives lost annually in this country because of preventable disease; to save the 300 million days lost annually due to illness and nonindustrial accidents; to build up 25 million youths and adults now physically below par and, to increase the span of life from 58 years, its present average, to 65 or 70 years by educating the public to annual health examinations."

All these things are opening up a vast new field for surgical thought and practice, which may, in time, classify our day as a new medical era. They are a challenge, not only to the doctors and to business but to the individual as well. As Hugh S. Cumming, Surgeon General of the United States Public Health Service, explains:

"Today from a sanitary engineering point, one person alone cannot hope to fight successfully against a common foe such as disease. It now takes the combined cooperation of an entire community to protect itself intelligently against any of the dread plagues."

It is possible to immunize a city, a great corporation's working area or a strip of territory like the Panama Canal Zone against many diseases just as it is possible to immunize an individual, but we can only do this by spending money, gaining scientific knowledge and passing laws to enforce medical science.

In all this we see the new type of sanitary engineer in full control.

To my mind there is another type of medical man developed by our era. I should call him the bedside medical engineer because, as a medical executive, he engineers or calls to his aid at the bedside for the benefit of the patient, all necessary special consultations, hospital facilities, nursing diet, and all the other sciences. In many cases for the diagnosis and treatment of a single patient, this medical executive will use the services, directly or indirectly, of a dozen to a hundred persons.

Corporations have changed

GREAT corporations have ceased to be the soulless combines pictured by the political stump speaker of a quarter century ago. Business and the medical sciences are coming closer together for good and sufficient economic reasons.

Medicine has become a great scientific business, in reality the biggest kind of big business. It underwrites the health and lives of all our people. In America the real importance of good health is being rated first in our minds as only common sense. In the 1928 report of the Iowa State Department of Health recently given out by the director, Dr. Henry Albert, you will be struck by the fact that proper preventive medical measures in childhood alone would have done much to have reduced the deaths from some of the leading diseases. By a proper expenditure of money, a human life by "care" alone can be protected from babyhood, through working days to old age, to such an extent as to extend the added term of useful life many, many years.

America is doing that very thing!



You can literally *see* the daylight streaming in through those skylights. But don't look at the skylights . . . look down near the floor of this foundry. That's the nub of the matter. That's where daylight counts. See how clear everything is down there on the working plane? Plenty of light. In spite of all the clutter of foundry equipment.

That kind of light is worth money. That kind of light shows up on the dividend sheet. It makes for precision of workmanship; it makes for speed; it reduces accidents. In this particular foundry, after a Robertson installation of *Measured Daylight*, spoilage at the molds was practically eliminated; production was increased 10 per cent without additional labor; and the need for artificial light was practically wiped out.

It is direct overhead light that counts most in industrial plants . . . skylights scientifically combined with sidewall sash. The Robertson engineers can take a blueprint of your buildings and tell exactly how much light you should have, just where it should be, and how to obtain it. Their suggestions will cost nothing. Send us a blueprint and some information about the nature of the work. No obligation.

H. H. ROBERTSON CO., PITTSBURGH

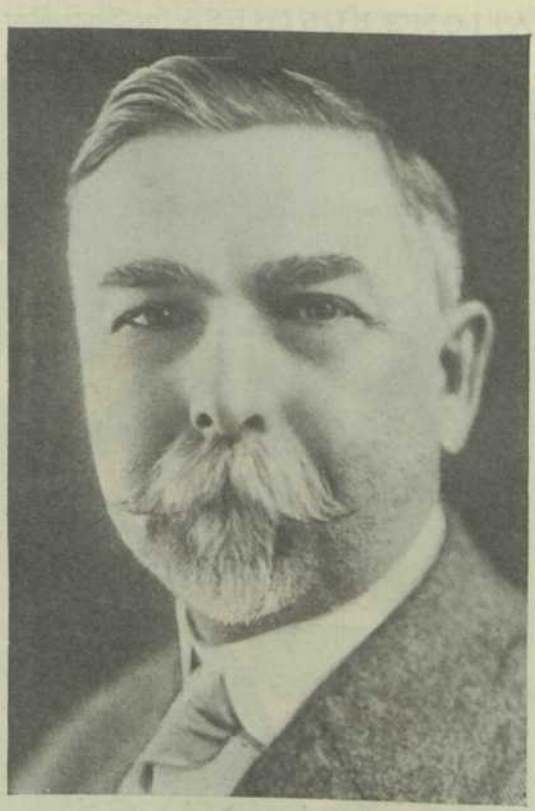
ROBERTSON

WORLD WIDE
BUILDING SERVICE

Business Cuts the Farmers' Costs

New England supplies an object lesson in faith, courage and cooperation

By HERMAN STEEN



HORACE A. MOSES

NEW England business men found that the high cost of commercial feeds was an important factor in the decline of that section's agriculture. Under Horace A. Moses' leadership they launched a plan to lower that cost—and did it

A DOZEN or so years ago there was so much talk about the decadence of New England agriculture that the New England Council, an organization interested in better business, determined to see what it could do to improve the situation.

There was nothing new in that. Business men have been meeting and inquiring and resolving about farm conditions for many years. However, these business men had more than the ordinary faith and courage. Having decided what should be done, they went ahead and did it. As a result, the Eastern States Farmers' Exchange, a cooperative supply-purchasing association fostered by the business men, nursed by them through its infancy and now advised by them in its mature years, now makes and distributes almost 20 per cent of all dairy and poultry feed used in New England.

It may be noted in passing that the relationship between the organized farmers and their benefactors has grown closer with the years and that the counsel and experience of the business men are solicited and followed more religiously now than in the first years of the organization.

To understand fully why this association has been such a boon to New England agriculture, it is necessary to understand that in most cases when a New England dairyman takes in $3 for milk he must spend $1 for feed. This is in addition to the feed produced on the farms, for the rock-bound hills that produce the far-famed Yankee character do not yield so well when it comes to forage.

The bureau named by the New England Council to investigate agricultural conditions reported that this high cost of commercial feed stuffs was one of the reasons for the decline of agriculture in the section. It suggested that this situation could be greatly improved by concentrated buying. The Eastern States Farmers' Exchange, accordingly, was organized.

Horace A. Moses, a paper manufacturer, was the leader of the movement. He and his associates placed their credit at the disposal of the Exchange when it started. They signed notes for $60,000 for three years to give it the needed operating capital.

Troublous times encountered

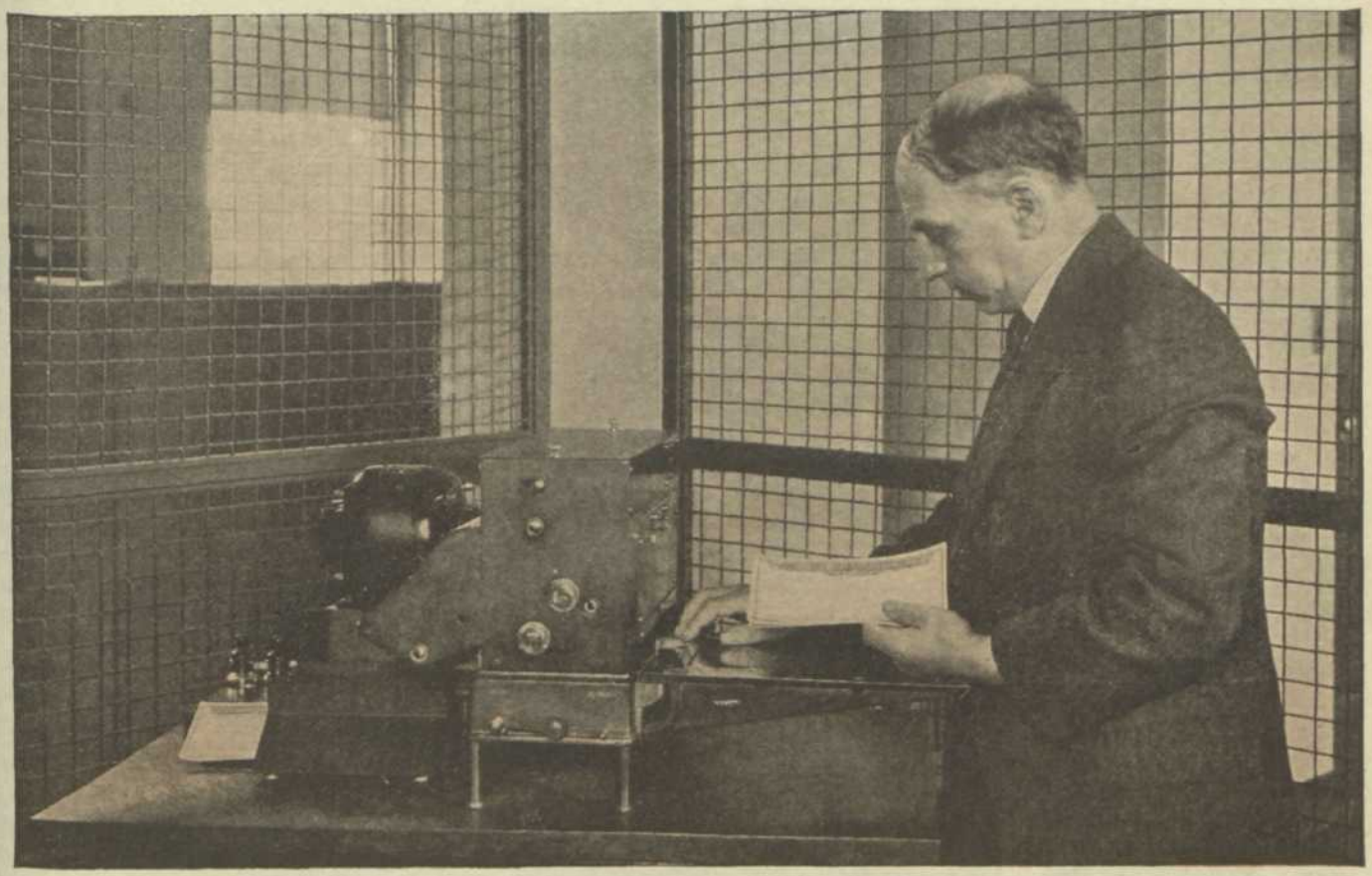
THE Exchange was soon up to its ears in trouble. It had difficulty working out a satisfactory system of distribution and after a year or so it ran into a declining market. After three years it was $42,000 in debt but the business men did not falter.

They signed notes for $100,000 for a second three-year period to provide credit for operating purposes. The Exchange leaders were learning from experience, and in the fourth year the organization began making money. It has prospered ever since and now is one of the substantial business organizations of New England.

The Exchange is a membership corporation. It has no capital stock. Every patron is a member and has one vote, the membership lapsing at the end of any two-year period in which he transacts no business with it.

The farmer members meet once a year and select a board of directors of 60 members. These directors elect an executive committee of seven or more members who meet once a month and make up the governing board of the organization. They approve all prices charged for feed and generally have jurisdiction over the institution. The actual business is vested in a manager, John D. Zink, who came into the organization in a subordinate capacity in the beginning and who has been general manager for five years.

The Exchange handles principally feed, fertilizer and seed. Its business is carried on through 400 local agents, nearly all of them leading farmers who



Above: The Todd Check Signer that serves The Connecticut Mutual Life Insurance Co.

"THE TODD CHECK SIGNER HAS BECOME INVALUABLE, RELEASING SEVERAL OFFICERS FROM MUCH TIME AND EFFORT WASTED IN THE WORK OF SIGNING CHECKS . . ."

The Connecticut Mutual Life Insurance Company

Todd Check Signers have been put into service everywhere in the modern business world to relieve executives forever of the tedious, time-wasting duty of signing checks by hand. Herbert H. White, Treasurer of The Connecticut Mutual Life Insurance Company, Hartford, says of the Todd Check Signer that his company has installed;

"After nine months experience with the Todd Check Signer, you will be pleased to know that it has measured up to all of your claims as well as our expectations of it.

"The Todd Check Signer has become invaluable, releasing several officers from much time and effort in the work of signing the checks issued by this Company. We have had no occasion to question for one moment the security of our drafts with the signature as affixed by your machine.

"Its ease of operation, time-saving feature, security and all-around mechanical performance should recommend it to all whose business demands the issue of a large number of checks."

The model illustrated is the Single Voucher Unit, signing and stacking 1200 checks an hour. A larger model signs 7500 to 9000 checks an hour! The signature produced by both machines is the most nearly non-counterfeitable known!

Leaders in the modern business world use and endorse Todd Check Signers. Your own executives will be more than interested in having complete information on this remarkable machine. Its speed, its safety, its immense convenience have won it an established place in modern business. The Todd Office in your city will put a representative at your service to demonstrate the Check Signer—or return the coupon directly to us. The Todd Company, *Protectograph Division.* (Est. 1899.) Rochester, N. Y. *Sole makers of the Protectograph, Super-Safety Checks and Todd Greenbac Checks.*

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look after the business in their respective communities. Their work is to take the members' orders for feed, fertilizer and seeds, arrange for shipment, unload the supplies, collect for them and generally carry forward the gospel of the organization among their neighbors. Some have small warehouses where goods are stored for a short time for convenience but the bulk of purchases are car-door business with cash payments. The local agents receive three per cent for their work.

Contract in advance

FARMERS contract once a year for their supplies. They specify the amount of feed needed and agree to take delivery of shipments scattered through the the year. No prices are named in the contracts.

Farmers also sign notes for $10 per ton for feed ordered. These notes are the means of financing the Exchange operations. There is a provision that the notes may be forfeited and collected as damages in case the farmer refuses the feed for which he has contracted but not a great deal of attention is paid to that.

While there is occasionally a breach of this agreement, only one case has been taken to court. That was brought to test the validity of the contract. The offender settled before it could be tried.

It is not necessary to sign a contract and note to buy feed through the Exchange. Any farmer may buy feed through the Eastern States without signing up but a differential of 50 cents a ton is made in favor of the contract signers. About 80 per cent of the business is contract business, nearly all the old members coming in this class.

Shipments made direct

THE Exchange manufactures its products at its own feed mill in Buffalo. As the bulk of orders are on hand from the beginning of the year, the organization is able to plan well ahead and buy its supplies in advance. This aids in economical operation. Shipments are made direct from the mill to the local agents.

The executive committee sets its prices for feeds according to a schedule in which is figured the cost of feed ingredients, the cost of operating the mill, the cost of running the Exchange, agents' commissions and a margin of one per cent or less to cover possible contingencies.

This margin is largely saved and at the end of the year one-third of it is transferred to the surplus fund of the Exchange and the other two-thirds is returned to the members in the form of a patronage dividend.

Last year the cost of manufacturing and distributing feed was almost exactly ten per cent. Three per cent of this was the cost of the agent system; 2.8 per cent the cost of operating the Exchange and 4.2 the cost of running the mill.

Just how efficient this record really is may be estimated from a study of feed-store operation made by the New Hampshire Agricultural College. It was found that the cost of retail distribution was 11 per cent on the average. In other words, the Eastern States Farmers' Exchange made its feeds and sold them for less than it cost the regular dealers to sell theirs, to say nothing of what it cost the manufacturer to make his feeds and sell them to the dealer.

In spite of that fact, I talked to Mr. Zink two hours without hearing a word about the cheapness of the feeds the Exchange turns out. He did refer about



BACHRACH

John D. Zink, for five years general manager of the Eastern States Farmers' Exchange

once every five minutes to the quality of the products made.

That illustrates the guiding policy of the organization. It is a service institution created to help establish and carry out policies which will keep dairying on a sound and satisfactory basis in the eastern states.

"We can't do that by filling up our feeds with oat hulls," said Mr. Zink. "The only man who can make anything out of this organization is the dairyman who buys his feed through it, and the only way he can make anything out of it is to have the best and most efficient ration for his cows.

"Our rations are worked out by an advisory committee which is made up of the feed experts of the agricultural colleges in this region, together with our own men who are in intimate contact with the farmers and with market conditions.

"If there is any way to make better feeds, we don't know what it is. Of course, we keep the relative price of ingredients in mind and the feed must not cost more than it is worth, but the first consideration is getting maximum results for our members. Results are what count, not whether some feed is cheaper or higher than ours."

A vast annual business

THE area originally covered by the Exchange included all New England except the northern part of Maine. A couple of years ago it was extended to include Delaware and parts of Maryland and Pennsylvania, where the farmers wanted a cooperative feed-purchasing service and invited the Eastern States to come in.

Last year the Exchange made and distributed 173,000 tons of feed and 16,000 tons of fertilizer. It transacted business for more than 23,000 members, some of whom bought commodities other than feed. The average dairyman bought 12 tons of feed for the year. The total business for the year amounted to $10,326,000, of which more than 90 per cent was dairy and poultry feed.

The Exchange is financed by the farmers' notes to which reference was made, and by the accumulation of reserve funds from its operations. Six years ago when the Buffalo mill was purchased, there was only enough reserve to make the down payment. A preferred stock issue and a mortgage provided the balance necessary. (Here again the practical experience of their business associates proved very helpful to the cooperating farmers.) The reserve fund has grown large enough to wipe out most of the indebtedness, as well as to provide several hundred thousand dollars of necessary operating capital.

It will not be long until the mill is paid for out of savings in manufacture and will then belong to the dairy farmers who use its products.



Where do we go.. *with all this power?*

THE little compass in the pilot house is an indispensable helper of the ship's mighty engines. It points the course unerringly through the far reaches of the sea.

Power, undirected, can never make a port . . . no more so in Industry than aboard ship. The millions of electric motors hitched to the machines of Industry will drive those machines far off the course . . . far wide of their possible earnings . . . without that compass of electric power, Motor Control.

Modern Motor Control sets the course that electric motors must follow. It directs motors and machines through automatic cycles—attentionless production at rock-bottom costs. On any application, Motor Control gets the most out of motor power . . . by guarding motors, and men too, from disorganizing mishaps . . . by permitting heavier loads on motors with safety . . . by diminishing the number of steps and motions required to start, stop, or manipulate motor-driven machines.

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Insist on Cutler-Hammer Control on all machines you buy. You will find, too, that it is recommended by most electric motor manufacturers for directing and protecting the motors they build.

Power without Control is worse than wasted

13

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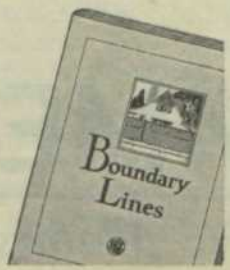


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"Boundary Lines" *tells how to plan protection, arrange entrances, etc. . . . Copy on request.*

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Machines Make Jobs

(Continued from page 45)

competition necessitated vast expenditures in advertising. This created new jobs in advertising agencies, in mailing departments, in printing establishments, in the post office, as well as in newspaper and magazine offices.

The increase both in number and volume of products led to an expansion in retailing facilities, the growth of chain stores, a general increase in sales forces.

Research laboratories were established to replace the lone inventor. An army of new jobs was created by the radio, by developments in the electrical field, by the automobile. Road building became of such importance as to be ranked almost as an industry. This in turn promoted bridge-building. The motion picture industry underwent tremendous expansion. In short, in every part of the vocational structure a new directory of jobs was written.

This tide of change in jobs resulted in a vast and utterly unprecedented movement of American workers.

The record of seven years

IT IS estimated that between 1920 and 1927 more than 860,000 workers left the farms to take up other vocations. The decline in the number of persons actually at work in manufacturing enterprises is put at 968,000. Of these 736,000 found work in other occupations. A new viewpoint toward education led 1,430,000 pupils of 15 years or more to remain in school who otherwise probably would have gone to work.

These figures are based on incomplete statistics. They do not take into account the incalculable number of changes within shops and trades, and from one branch of manufacturing to another; but the facts which they do indicate—that 1,828,000 workers had to seek entirely new ways of earning a living in seven years, and that 1,430,000 potential workers decided to continue their schooling—are a cause of wonder.

Not alone has there been a movement of workers, but there also has been a movement of the units of industry that is likewise unprecedented in its scope and consequences.

Textile factories using cotton as a raw material have been moving into the cotton belt. Shoe factories have been moving westward. These two are outstanding examples but other industries have been involved as well. There is a well-defined drift away from the old centers in New England and the East toward the South and West.

A decentralization has been in progress in all lines of industry. Industrial districts within cities are being broken up and their units moving into rural areas. In other words, as old plants in crowded centers are made obsolete by change the owners prefer to rebuild in locations that offer lower tax rates, better living conditions, and cheaper land. High freight rates and improved rural transportation have had much to do with the change.

A study of this shifting from old centers to new, from big cities to towns and country, shows that the rural gain has been most marked in Ohio and Michigan, in the South Atlantic states, and on the Pacific Coast. New England and to some extent the Middle Atlantic states have failed, on the other hand, to keep pace with the rate of growth for the rest of the country.

Finally, we must note the change in our own habits. Due to the mechanization of industry and better methods, we are working fewer hours and using less physical energy in our work. Due to the telephone and automobile, we are riding more and walking less. This has changed our eating habits.

There has been a notable decline in our consumption of wheat and corn, and a notable increase in our consumption of dairy products, vegetable oils, sugar, vegetables and fruits. It is estimated that we drink one-third more milk than we did. We are probably eating more meat, though the figures are not clear.

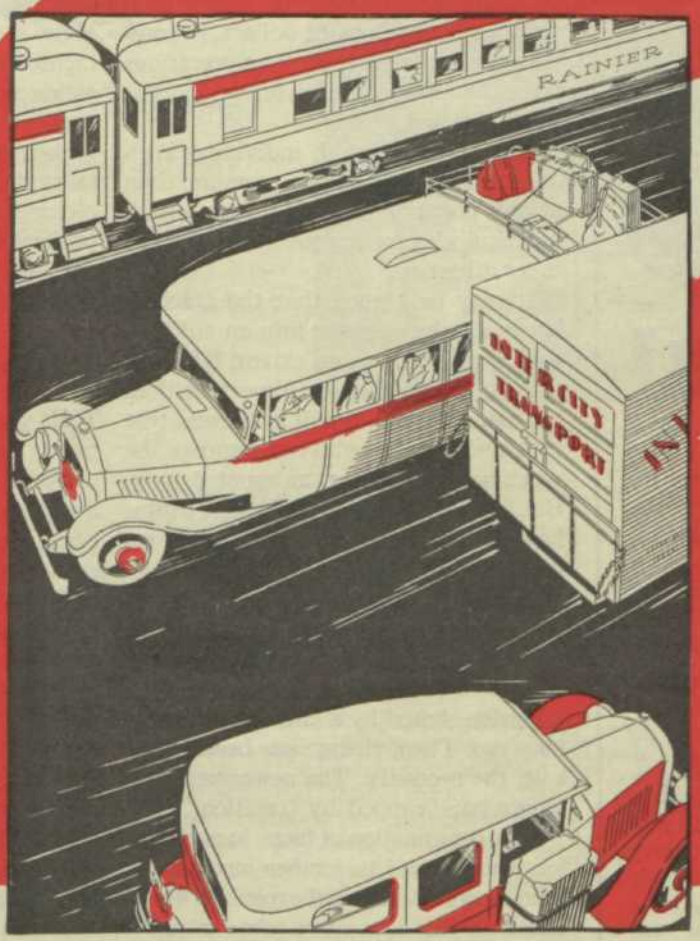
A million bathtubs a year

WE ARE insisting on new houses of a better type. Old houses stand empty or demolished in every part of the land. Bathtubs are being installed in our homes at a rate of 1,100,000 a year. We are bathing more, using more water. We are "going" more, spending more in amusements, sports and cosmetics.

These are the five major phases of change. Add two important incidental changes—decline in the birthrate and restriction of immigration—and we have the complete picture before us from which to draw our conclusions. My own conclusions are given in the order that they came.

What struck me first and hardest was the fact that, while the business man's job today requires less physical effort, it demands more brain effort, more

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Transportation, selling itself in terms of Time, can't afford the costly delays caused by Fire. Therefore 1673 of the powerful companies owning and operating transportation vehicles, protect their terminals, shops, and moving properties with some type of American-La France and Foamite equipment. Not just an "extinguisher"—or two or twenty! But the correct type of protection planned, installed and serviced by American-La France and Foamite fire protection engineers. Men whose advice and suggestions can be safely followed. For since this company makes all types of extinguishers, from one-quart hand size to the powerful motor fire apparatus used by 90% of American cities, their recommendations can be unbiased and final.

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thorough training, greater originality, specialized knowledge of the task.

The reason for this is obvious, of course. The new keenness of competition, both between men and things, makes new ideas mandatory. Production has increased to such a scale that even the small savings or wastes soon mount into millions of dollars. A company without new ideas has a precarious present and a doubtful future. So has the individual.

On the other hand, individual initiative commands a higher premium than at any previous time. The man with a practical idea for improvement is given eager attention.

It may be argued that the machine has made the operator into an automaton. This is true to an extent. The machine has become more important than the man. Nevertheless it is likewise true that the operator who can improve the machine won't be an automaton long. But that, again, demands brains. Brains have become the key to all advancement of the individual.

Also the individual has a greater opportunity to show what is in him. As soon as he rises above the automaton stage he is entrusted with responsibility, a burden shared by a chosen few not so long ago. Then, change has become the rule, the necessity. The newcomer is no longer handicapped by tradition.

This combination of facts, in my opinion, should lead to further increases in school enrollments, and expansion of educational facilities, more jobs for teachers, publishers, writers and booksellers. We have not stopped growing in this field. Growth has only begun.

The next fact that struck me was that the advent of the efficiency engineer and of the personnel manager should be of advantage to the employe as well as to the employer. Both are primarily concerned with having the employe placed in the job he can do best and for which he is naturally fitted. Therefore, in the future, fewer workmen should be misfits in their jobs. More workmen should "stay put" and work steadily as long as the employer is busy.

Less unemployment likely

ONE great sweep of change has passed. Henceforth it seems not unlikely that the rate of change will be slower at least for a time. The vast migration from the farms is well past its peak; the factory situation is stabilizing.

The decline in the birthrate, limited immigration, the natural expansion of business, are factors that should help to narrow the gap between jobs and workers if business continues in a healthy state.

In this connection it should be noted that only in manufacturing and in agriculture has there been a decline in the number of jobs available. Between 1920 and 1927 the public services found places for 100,000 new workers; more than 600,000 entered construction work of some sort; nearly 1,000,000 were attached to transportation and communication services; 2,000,000 became mercantile employes; more than 2,500,000 took miscellaneous jobs in hotels, restaurants, garages, repair shops, motion picture places, hospitals, insurance work, professional offices. These groups all expanded, and it is indicated that they will continue to expand.

The fields of the future

THE young man or woman who is preparing for work today will do well to consider in more detail the indicated avenues of expansion. Road-building has been mentioned, for example. We are spending $1,400,000,000 yearly on roads and streets; but of 185,772 miles of principal roads planned only one-third has yet been built.

Take homes. Entirely apart from the demand for new homes of finer architecture, finer furnishings, finer landscaping and more bathtubs, the ordinary increase in population requires 400,000 new homes a year. Here in a single field, construction, are opportunities for a hundred professions and crafts.

Traffic offers its multitude of new problems to be solved. Industrial research lately has opened a broad field to the specialist. If the general and evident trend of change is comprehended it is not difficult to single out the avenues of development. I have named only a few. In almost every instance they have been opened by the machine or by the invention of a new product.

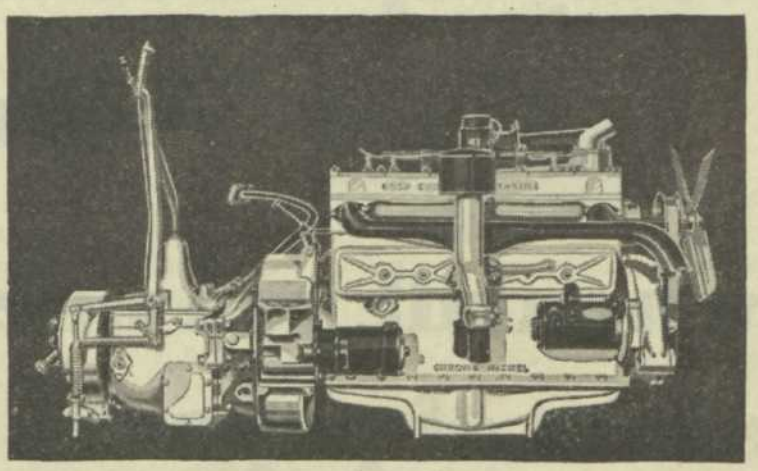
We have seen, too, that some sections of the country are developing faster than others. The great cities have lost ground to the country in the location of manufacturing plants. The historic centers of the East have lagged in their rate of growth. These changes should be considered in our conclusions. Probably there will be further shifts in population.

But it must be kept in mind, too, that the older sections are awake to their losses. Likewise the older industries in most part are awake. Only a few of these latter have disappeared; instead they have transformed themselves with remarkable ingenuity to fit the new day. While the new is mustering its recruits, the old is seeking for its Moses to lead the way.

REO GOLD CROWN ENGINE

—Powering

1½ to 3-Ton Speed Wagons— Will Break All Records For Continuous, Uninterrupted, Long-Lived Service In The Commercial Hauling Field!



Reo Gold Crown Engine

WITH an internationally recognized background of experience in building long-lived trucks, Reo engineers set about to make still more outstanding Reo's record for continuous service.

The Reo Gold Crown Engine was the result! Every engineering advancement, every new and proved development known to science, was included in the design and manufacture of this remarkable engine.

New Long Life Metals

New materials were developed for the Gold Crown Engine. Chrome Nickel Alloy Iron Cylinder Blocks (try a file on it!) with seven times the endurance qualities of the conventional close-grained iron, have reduced valve grinding, valve seat wear, valve tappet adjustments and cylinder wear to a fraction of that ordinarily expected in an engine. This new material is made from an exclusive Reo formula. An utterly new type of low expansion pistons was developed which permit of much closer fit and consequently assure greater power and *permanence* of power. This new aluminum alloy offers greater heat conductibility and is so amazingly tough that scuffing and roughening are eliminated.

Friction Eliminated

Friction is combated with a full force-feed type lubricating system. Reo engineers eliminated all interior oil pipes with the exception of one very short leader. Oil ducts are bored through the heavily-ribbed crank case —gun drilled true.

Oil Now Cooled

Wholly new-type oil pan has been developed, with cooling fins to reduce the oil temperature from 15 degrees to 40 degrees, according to the state of atmospheric temperature. Thus oil is held at its most efficient viscosity. An oil filter cleans the oil every trip to the bearings. The crank shaft rotates on seven replaceable bronze-backed main bearings—shimless so that accuracy in alignment is assured. The old practice of rebabbitting is eliminated and perfect alignment is possible not only at the time of manufacture, but in later service operations as well.

Throughout Speed Wagon chassis construction you will find frequent instances where Reo engineers have guarded against the human element in Service Stations by making it impossible for mechanics to be inaccurate.

The faces of the cylinder blocks are machined to perfect parallel alignment; the crank case supports for the interchangeable crank case bearings are machined in the Reo factory to absolute precision, making it possible for replacement without lengthy, expensive scraping. Thus, service work is easier, quicker, far more accurate and less expensive.

Vibration Defeated

You can't detect vibration in the Reo Gold Crown Engine. The 65¼-pound crank shaft is balanced both statically and dynamically. The fly-wheel, clutch and transmission brake drums are balanced separately. We could save money, just as many other manufacturers do, by balancing these parts as a single unit but for the benefit of the engine in years to come when parts may need replacing, Reo balances each unit separately.

Precision Built

Connecting rods are matched for weight overall and end for end. The bearing is babbitted under pressure and broached to perfect circle contour and size. To guard against variations in atmospheric temperature as between extremely cold and warm days, Reo pistons are held in a thermostatically controlled bath of water at 70 degrees, providing a perfect match with an amazingly low tolerance.

These refinements in manufacture and engineering largely eliminate vibration. But Reo doesn't stop with these. To take care of the slight vibration that may result from minute differences in spark plug gaps and floating flakes of carbon under a valve, a vibration damper is installed at the forward end of the crank shaft, utterly eliminating all vibration that might remain. In after years, when slight variations appear according to the attention given the engine, this damper will still check, to a noticeable extent, the slight vibration that may creep in.

Cylinders Evenly Cooled

A unique device has been developed by Reo engineers to control the temperature between cylinders to within 4 to 5 degrees. A water temperature regulator is also provided to raise the temperature automatically when needed and every 7 seconds a new supply of 6 gallons of cooled water passes through the engine. Even the fan blades are matched—and the unit balanced to a hair!

Fine Materials Finely Engineered

Throughout the engine, only materials known and proved to give the longest life are used even in the small parts. Wil-chrome heads are used on the valve lifters where they come in contact with the cams. This eliminates wear on valve lifter heads which causes a variation of valve openings and consequent vibration.

Drop forged parts are given the finest special treatment to insure perfect grain flow and consequent strength.

Reo Speed Wagons are offered in 14 wheelbase sizes—from 115" to 179". Chassis priced from $895 to $2200. They incorporate such modern-day advantages as 4-forward speed transmission, 4-wheel, 2-shoe, internal expanding hydraulic brakes, 6-cylinder engine, 7-bearing crankshaft and many other refinements.

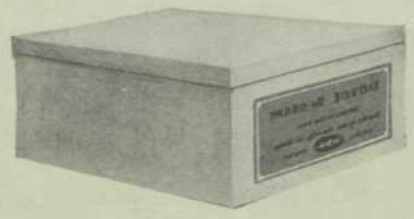
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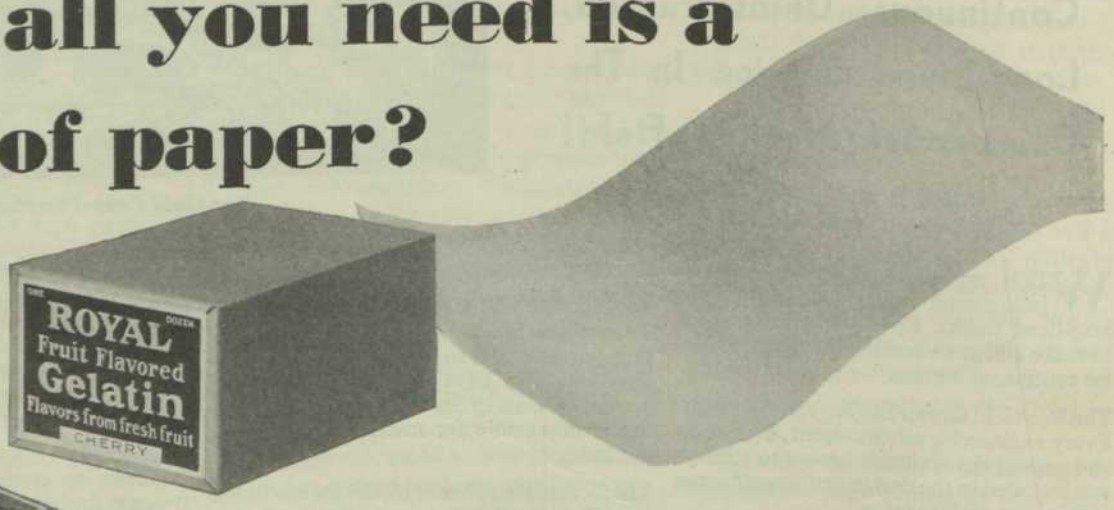
REO LONG LIFE

SPEED WAGON

World-Leader in High Speed, Low Upkeep Commercial Transportation

Why spend money on an expensive box, when all you need is a sheet of paper?













These manufacturers are saving thousands of dollars with machine bundling

Modern wrapping machinery has contributed another outstanding economy to American industry—*machine bundling*.

Instead of using expensive card-board boxes, manufacturers of package goods now bundle by machine in strong but inexpensive kraft paper.

This makes an immediate saving of 60% on the cost of packing material. Sixty per cent! Stop a moment, and figure what this would mean in your case.

Saves labor too; you need only one machine and one operator to take care of the output of two or more cartoning machines.

Transportation costs are also lowered—the paper is so much lighter than the boxes.

Manufacturers using cartons designed for display on dealers' counters have found that most of these cartons are immediately discarded by the dealer. To prevent this waste they now bundle their packages, and furnish dealers with permanent displays.

Our machine bundles in dozen or half-dozen lots. A real advantage in selling chain stores.

Look into this large saving

Write to us for "Certified Surveys" made by the Nielson Company, Engineers, in such plants as the Norwich Pharmacal Co. and the Bristol Myers Co.—these surveys show in detail how machine bundling lowers costs. If you will send us a dozen of your packages, we will also show you how our machine would bundle them. Get in touch with our nearest office.

PACKAGE MACHINERY COMPANY
Springfield, Massachusetts
New York: 30 Church St. Chicago: 111 W. Washington St.
London: Baker Perkins Ltd., Willesden Junction, N. W. 10



PACKAGE MACHINERY COMPANY
Over 150 Million Packages per day are wrapped on our Machines

The Northwest's Rail Problem

By FRANK L. SHULL

President, Portland (Ore.) Chamber of Commerce

WE have seen in every section of this country a vast development of natural resources. But in spite of the rate and magnitude of that development, both in my own Pacific Northwest and elsewhere, we are not developing those resources as fast as they should be developed. Cost of transportation, I believe, is one of the more important reasons for this. Therefore, if we would attain a speedier and more efficient development of our resources, we must strive to reduce transportation costs. Naturally the question arises, how shall this be done?

One of the surest ways of cutting transportation costs, as I see it, is to reduce excessive competition, a condition that now handicaps many of our railroads just as it is handicapping certain other branches of business.

There is the case of lumber. We have in the Northwest the last of large timber tracts. Vast capital is invested in lumber mills. Their capacity is far greater than is needed to supply the demand for lumber. As a result the mills must be shut down periodically, leaving the invested capital unproductive, or an oversupply of lumber must be sold at a loss.

In broad outline, that is the situation today. An essential product is being wasted and we have an economic loss. There is yet the other and better solution—consolidation. An earnest attempt has been made to bring this about but so far without success. It is significant, however, that the public has offered no word of disapproval.

Lumber shows typical problem

THE lumber industry has been cited merely as an example. It happens to be the principal industry of the Pacific Northwest. What is true of the lumber industry, however, is true of flour milling, coal mining and some other basic industries.

In the service provided by public utilities does experience argue for unlimited competition? On the contrary, better service at less cost comes from controlled monopoly. When two companies are supplying power in a city there is a greater cost of administration, duplicate power plants and distributing lines, less net income, and, therefore, less surplus for upkeep and further extension of service.

The situation, in some regions, is parallel in the matter of railroads. In the West we have constructed more transcontinental lines than we need. This is especially true of lines built to handle through traffic which constitutes the bulk of the competitive business. In the Pacific Northwest particularly we have the Great Northern, Milwaukee, Northern Pacific and Union Pacific with direct lines east, and the Southern Pacific, not so direct but competing for much of the available tonnage.

Duplication of work

NONE of these lines is using its transportation plant at anywhere near capacity, either for passengers or freight. Each railway has its own overhead expense. Each operates its own trains from the Pacific Coast to the Middle West. Leaving a western terminal at practically the same time, two or three trains divide a business that one could handle. This of course means duplicate train crews and duplicate depreciation of train equipment, rails, and road bed. There is the added burden of duplicate terminals and duplicate repair shops. All this is paid for by the traveler and the shipper, with the latter's burden finally falling on the producer and the consumer.

We pride ourselves on our efficiency, but there is room for improvement in rail transportation. The people are beginning to ask for legislation compelling railroad consolidations and several roads now have proposals before the Interstate Commerce Commission requesting such consolidations.

A few years ago we suspected a selfish motive in any proposal advanced by a railroad. There still are railroad officials, no doubt, who care more for supremacy in their particular field than for the public interest. But times have changed. The scrutiny of the Interstate Commerce Commission makes it necessary that any proposal of the railways be above suspicion. In the case of consolidations, the Commission requires the railroads to prove to its satisfaction that the proposal is in the public interest.

Plan has general approval

THE Commission is now considering such a proposal. The Great Northern and the Northern Pacific have asked the Interstate Commerce Commission to permit owners of their stock to exchange their holdings for stock in a new company to be known as the Great Northern Pacific. This company would then operate through lease as one system the two northern companies and the Spokane, Portland and Seattle Railway, now jointly owned by the other two. The Chicago, Burlington and Quincy Railroad, of which 97 per cent of the stock is owned by the Great Northern and Northern Pacific would continue under separate management.

The stockholders evidently approve the plan. About 70 per cent of the stock of the two companies has been deposited for transfer when and if the consolidation is affected. The net income and assets of each company are so nearly comparable that this simple method of uniting the properties was found practicable and was adopted. No additional stocks or bonds are necessary or contemplated. Consequently, virtually no objections have arisen from the standpoint of financing.

Another and no less important factor is the personnel of the directing heads of the companies. They are held in high esteem by the public. They believe that consolidation will be in the interest both of the territory they serve and the stockholders. Each line is well managed. Operating costs have been reduced, rolling stock and equipment have been maintained and excellent service has been evident.

Would competition be reduced to a harmful extent if these roads were combined? In all the country south of Ore-



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The working efficiency of a steam boiler depends largely upon the efficiency of the firing. Gas heat provides maximum speed of flame propagation and a full head of steam without loss of time. And the accurate controllability of gas assures efficient temperature regulation without waste. That's economy . . .

Write for copy of "Industrial Gas Heat." Sent free on request.

American Gas Association
420 Lexington Avenue, New York

If it's Done with Heat—
YOU CAN DO IT BETTER WITH

GAS



When writing please mention Nation's Business

gon there are but four transcontinental lines, while five lines directly serve the more sparsely settled Northwest. Moreover, the area served by these five lines is only about one-third as large as that served by the four lines to the south. The railroads of the Southwest have prospered because the volume of traffic has not been spread over so many lines.

There has been ample competition in the Southwest and yet the roads there have had sufficient business to show reasonable profits, which in turn have justified new construction and freight charges that have served to develop added production and therefore additional tonnage.

In the North four roads parallel each other, competing for a much smaller volume of tonnage—tonnage that could be handled easily by fewer roads at an appreciable saving in costs. A fifth line, the Southern Pacific, competes for a considerable amount of the Oregon tonnage. Still another transcontinental line, the Canadian Pacific, with its controlled line, the Minneapolis, St. Paul and Sault Ste. Marie, constitutes virtually a sixth transcontinental line in this same general area. Besides these roads there are the ocean carriers which in recent years have taken an enormous tonnage away from the railroads.

Lower ratio could be made

THE need in the Northwest is less duplication of capital investment in transportation facilities and the resultant reduction in cost of transportation. There would follow greater earnings to the railroads, which ultimately would be reflected in lower rates and rail extensions into undeveloped areas that at present have no rail facilities.

Figures given by the roads show that the territory served by these railways in competition with other transcontinental lines includes a population of 2,000,000, while there are only 100,000 persons in sections served by the two lines exclusively. In other words only about five per cent of the people served by the two lines would be confined to these lines under consolidation.

Ninety-seven per cent of the agricultural products shipped from the Northwest by the two lines moves from stations on one of the lines but not served by both. Less than two per cent of the grain moves from stations situated on both lines and not served by a third railroad.

On the other hand a merger of the lines would give shippers on each railway access to markets they cannot now reach directly.

Consider fruit, which is increasing in importance every year as a source of revenue in the Northwest. On either line it passes through Spokane on its way to eastern markets. Under one ownership of these roads, shippers would have access to all points on both roads at one rate, instead of at a combination of rates as at present.

The evidence shows that freight moving from one line to a destination on the other pays 15 per cent more in rates than when moved over one line alone. These two line rates would of course be eliminated.

More economical routes

LUMBER, fruit, live stock, dairy products and eggs moving across the continent should do so by the shortest and least expensive routes. With these roads under one control and using the shortest, most favorable routes distances will be shortened from 100 to 250 miles. At present the Great Northern carries large quantities of lumber and fruit into Billings, Mont., but to reach Billings these commodities are moved 100 miles farther than would be necessary if moved over the Northern Pacific tracks from Spokane to Billings. In this way alone, $500,000 annually would be saved by consolidation.

Freight now moving over the Northern Pacific from the Pacific Northwest to the Twin Cities area would cover 115 miles less distance by reason of the shorter route via the Great Northern.

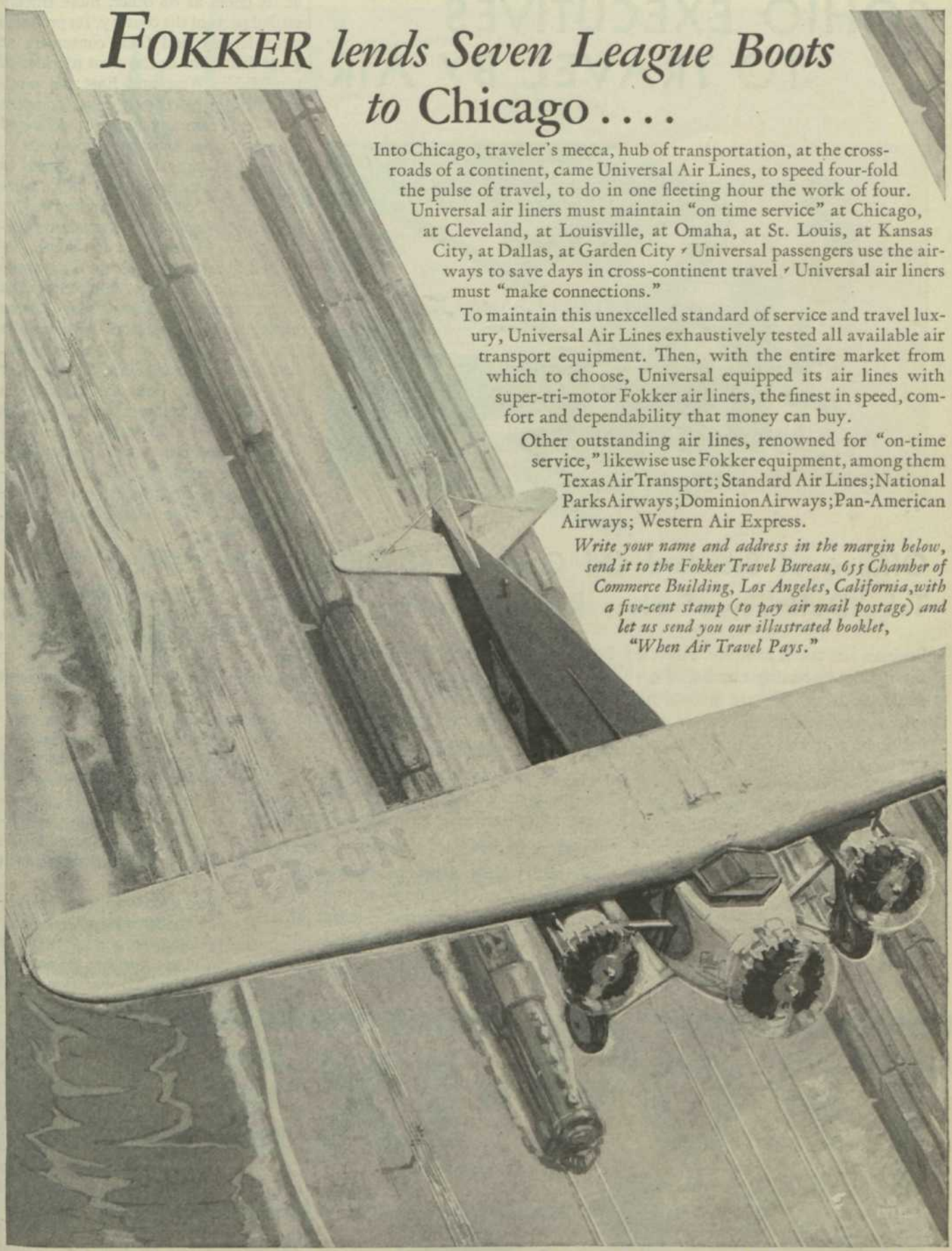
Lumber originating on the Northern Pacific at Snohomish, Wash., and points north of there, if diverted over the Great Northern, would save 251 miles in distance to the East.

As to passenger service, the Northwest would naturally expect the unified railway, with shorter and more favorable routes available, to put the passenger schedules between the East and the Pacific Coast on a parity with the schedules of lines serving the Southwest. The faster schedules to the Southwest are doubtless warranted by the greater patronage those lines enjoy, but with the two northern lines united the increased patronage might be expected to justify faster service.

In no part of our country is efficiency in railroad operation so vital as in the Northwest. Growth and development there depend on low freight rates as in no other section. There is probably more undeveloped land in the Northwest than in any other section. Development depends upon ability to reach consuming markets.

The Northwest has no such markets

FOKKER *lends Seven League Boots to* Chicago....



Into Chicago, traveler's mecca, hub of transportation, at the cross-roads of a continent, came Universal Air Lines, to speed four-fold the pulse of travel, to do in one fleeting hour the work of four. Universal air liners must maintain "on time service" at Chicago, at Cleveland, at Louisville, at Omaha, at St. Louis, at Kansas City, at Dallas, at Garden City ✓ Universal passengers use the airways to save days in cross-continent travel ✓ Universal air liners must "make connections."

To maintain this unexcelled standard of service and travel luxury, Universal Air Lines exhaustively tested all available air transport equipment. Then, with the entire market from which to choose, Universal equipped its air lines with super-tri-motor Fokker air liners, the finest in speed, comfort and dependability that money can buy.

Other outstanding air lines, renowned for "on-time service," likewise use Fokker equipment, among them Texas Air Transport; Standard Air Lines; National Parks Airways; Dominion Airways; Pan-American Airways; Western Air Express.

Write your name and address in the margin below, send it to the Fokker Travel Bureau, 655 Chamber of Commerce Building, Los Angeles, California, with a five-cent stamp (to pay air mail postage) and let us send you our illustrated booklet, "When Air Travel Pays."

FOKKER AIRCRAFT CORPORATION OF AMERICA

Factories: WHEELING, WEST VIRGINIA, *and* TETERBORO AIRPORT, HASBROUCK HEIGHTS, NEW JERSEY
Address business inquiries to NEW YORK OFFICE, 110 EAST 42nd STREET

Name.....

When writing to Fokker Aircraft Corporation *please mention Nation's Business*

SOHIO EXECUTIVES TO TRAVEL BY AIR



Officers of Standard Oil Company of Ohio Take Delivery of New Ryan Brougham

Business has taken to wings. Among the rapidly increasing number of organizations which are providing private planes for their officials, and for good will use, is the Standard Oil Company of Ohio.

The picture above shows A. M. Maxwell, vice-president in charge of Sohio sales, taking delivery of the "Sohioan" —a new Ryan Brougham. At the right is Howard G. Jones, vice-president and treasurer of Sohio, and at the left is Dewey L. Noyes, the pilot. Clifford Gildersleeve, Ryan distributor for Ohio, is turning over the keys.

Choice by Sohio of the new Ryan Brougham for six, with its Wright 300 H. P. Whirlwind Nine, is another tribute to the well-earned leadership Ryan planes enjoy.

Brilliant performance, inherent stability, together with stout and over-required ruggedness, are characteristic of the hundreds of Ryan ships in service both at home and abroad.

Those powered by the new Wright J 6—with its additional hundred horse power—are achieving new performance and reliability records.

The new Ryan Brougham provides a cruising range of 700 miles—cruising speed of 120 miles per hour. It takes off fully loaded in 275 feet and in 8 seconds' time—and it lands in a 200-foot circle.

Let us show you how the Ryan Brougham, or the Ryan Flying office will provide you, too, with new business advantages. Or write for our handsomely illustrated catalog.



RYAN AIRCRAFT CORPORATION
Division of
DETROIT AIRCRAFT CORPORATION
Lambert-St. Louis Airport
ANGLUM, MISSOURI

SISTER SHIP OF THE "SPIRIT OF ST. LOUIS"

RYAN

When writing to RYAN AIRCRAFT CORPORATION *please mention Nation's Business*

at its doors as do other, more thickly settled parts of the country. Its products must largely find their consumers at great distances. In the great markets of the Middle West and East the products of the Northwest must compete with those from much nearer, delivered at much lower transportation costs.

Lumber from the Pacific Coast to Chicago moves more than 2,000 miles at a cost of 72 cents per hundredweight, and must be sold at Chicago in competition with lumber from the South, delivered at a freight cost of 35½ cents for a haul of 865 miles. Apples from the Coast move 2,000 miles to the Chicago market in competition with apples from New York, which travel 550 miles. Idaho potatoes must stand a rate higher than those from Colorado. Chicago in 1925 received potatoes from 37 states and apples from 25 states. The northwest products must meet this competition. Cedar shingles, an important product of the Coast, can reach only a limited market because of the freight costs.

Greatest efficiency needed

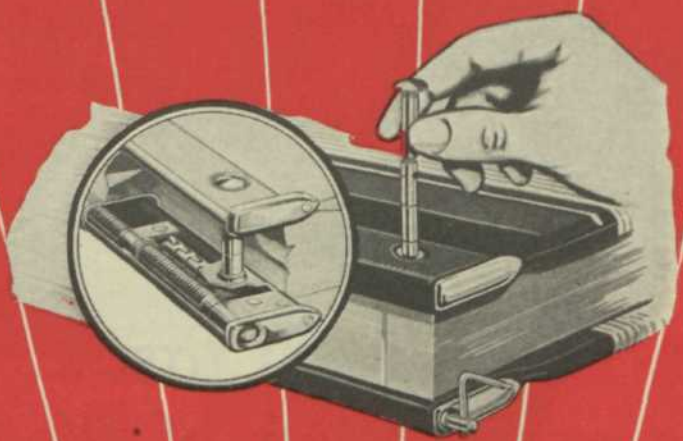
NO ONE factor has so held back the development of the Pacific Northwest as has the transportation charge to markets. In no other section is it so necessary that every unnecessary item of expense be eliminated from this cost.

Under present conditions it is questionable whether further material savings in railway operation can be made by these carriers. The roads asking permission to consolidate have accomplished much toward reducing operating cost. Their record compares favorably with the best managed railroads in the country.

At hearings on the proposed consolidation before the Interstate Commerce Commission much statistical evidence was introduced to show that the savings possible through unified operation would be not less than $10,000,000 a year. The railroads are public service corporations. The life of communities, the prosperity of millions of people depends on them. It is the public's business to see that the railroads are operated in the most economical way. If this can be done through consolidation, safeguarded so far as the public is concerned by federal regulation, then the public should demand consolidation.

The development of the Northwest's natural resources depends upon lowest possible freight charges, and upon new construction into undeveloped sections. Both these things can be brought about only through the lowest possible cost of railroad operation.

At Last— The Guaranteed Binder!





This bond guarantees Flexi-Post mechanism for life, and is now gummed to the cover of every Flexi-Post binder.

AT last a binder has proved itself so dependable in service that it can now be guaranteed. Here is positive proof that Flexi-Post is the outstanding binder of the day, for it is the only one backed by a sweeping guarantee. A bond that gives absolute assurance of lifetime service from the exclusive Flexi-Post principle of flexible link posts that disappear — that give Flexi-Post binders their capacity to outwork several ordinary binders.

Mechanism Guaranteed for Life

—against failure due to any cause whatsoever. That means that every Flexi-Post advantage is a *permanent* advantage—unlimited capacity, flexibility for present and future needs, direct screw compression, constant security for sheets, two inches of working space, and posts that can't scratch the desk . . . Only Flexi-Post gives all these features — these bonded, lifetime advantages — which your supply dealer will gladly demonstrate.

STATIONERS LOOSE LEAF CO., *Milwaukee, Wisconsin*

THE BINDER with POSTS that DISAPPEAR.

FLEXI-POST

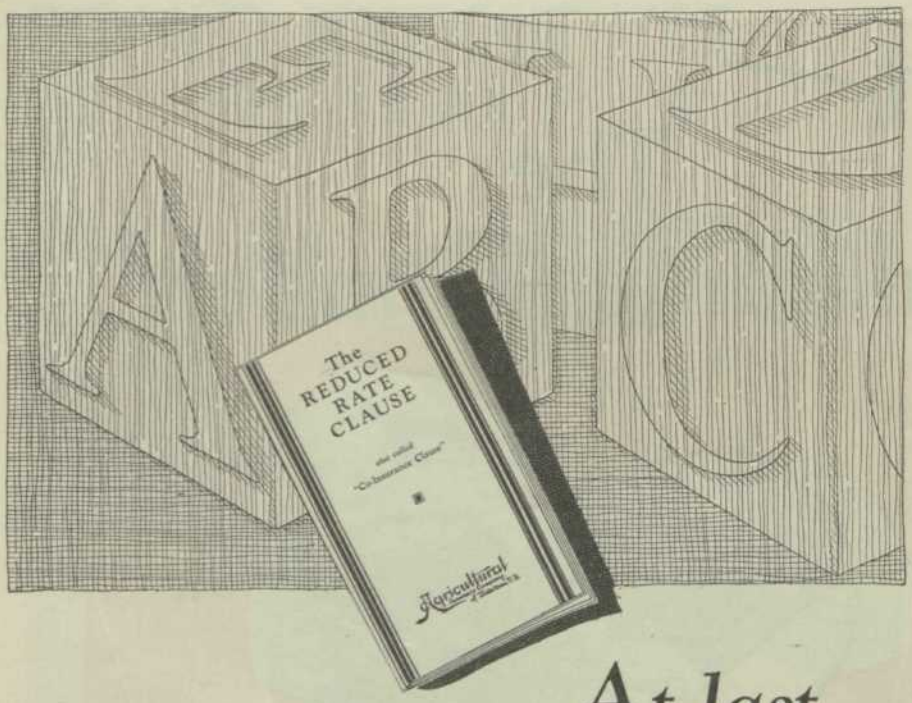
REG. U.S. PAT. OFF.

The Guaranteed Binder – a Unit of the FAULTLESS Line

STATIONERS LOOSE LEAF CO.
Dept. A-9, Milwaukee, Wis.
Kindly send free copy of Flexi-Post booklet.

Name.....

Address.....



At last . .

a simple explanation of the REDUCED RATE CLAUSE

(frequently called Co-Insurance)

Known by a dozen names—the Reduced Rate Clause has not been widely understood. Hence it has been frequently misused, or not used at all.

Here then, for you is a new and simple explanation of this most useful provision. Here is a non-technical booklet that offers an understanding of an agreement of decided advantage to you, because it is fairest to everyone.

☼ ☼

The booklet is free for the asking. You'll be interested. It is a plain, frank discussion, with a minimum of insurance terminology.

May we send you a copy? After you have read it, we will gladly send as many additional copies as you may want for your business friends, neighbors or employees.

☼ ☼

Should you have any questions on insurance, we shall be happy to have our local agent in your community or a company special representative call, at your convenience.

You can obtain Agricultural Policies for all coverages such as:

Fire · Parcel Post
Automobile · Marine
Use and Occupancy
Rent and Leasehold
Windstorm · Floaters
Sprinkler Leakage
Registered Mail
Transit · Earthquake
Tourists' Baggage
Explosion and Riot
Aircraft Damage

Agricultural Insurance Company of Watertown, N. Y.

When writing to Agricultural Insurance Company *please mention Nation's Business*

The Map of the Nation's Business

(*Continued from page 39*)

could not have been wholly responsible.

Two mail-order concerns report a combined gain of 32.4 per cent over last July. This gain, by the way, follows an increase of 22 per cent in July, 1928, over 1927.

Chain stores show a gain of 30.2 per cent over a year ago in July, the latter in turn showing a gain of 14.6 per cent over July, 1927.

The department-store branch of retail trade, however, did not do so well. The net gain for all stores reporting was only three per cent, even with one day more in July this year. Then too, more than half the stores reported actual decreases and three Federal Reserve districts, Minneapolis, Atlanta and Philadelphia, reported smaller sales than a year ago.

Failures show increase

JULY failure returns show moderate increases over July of the preceding two years, 8.6 and 3.5 per cent respectively, but liabilities have been swelled greatly by numerous bank suspensions, a great many of these in Florida.

The excellent showing made in the first quarter of this year by corporations engaged in manufacturing and trading were further increased in the second three months.

The National City Bank has pubished a summary of 259 concerns which reported a gain of 32.5 per cent in net profits for six months compared with the like period of 1928. This high percentage did not hold good in the profits of railroads, telegraph and telephone and other utilities but the grand total of net profits of 625 concerns shows a gain of 23.8 per cent over the first half of last year, with every group but one, leather and shoes, showing gains. The major advance, as expected, is shown by iron and steel companies.

It is one of the ironies of the agricultural situation that the notable strength of prices in June and July, which has been hailed as a great boon to the farmers and really seems to have stimulated trade, had its rise in the now apparently serious damage to crops by heat or drouth or both.

Wheat prices, with an advance of 54 per cent from June 1 to July 29 constituted perhaps the most spectacular feature in the entire price situation but the potato has sold at from two to 2.5 times the price ruling a year ago.



FACTS.. FACTS..

that's what fleet operators want

HERE are four facts about Ethyl Gasoline:

1. Ethyl is good gasoline turned into *better gasoline* by the addition of a vital ingredient—Ethyl fluid. This is an anti-knock compound containing tetraethyl lead, developed by automotive science to make gasoline a better motor fuel. That it does this is proved by the fact that leading oil companies in the United States, Canada and Great Britain mix it with their gasoline to form Ethyl Gasoline.

2. By eliminating "knock" Ethyl brings out of any engine an additional power which cannot be obtained with ordinary gasoline. This means less strain on engine parts over long hauls and on hills. It means reduced gear shifting and consequently better control under all driving emergencies.

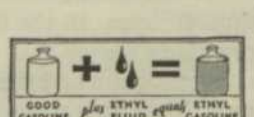
3. Ethyl speeds pick-up and getaway in traffic. Applied to every unit of a fleet and multiplied by the days of the year this means a substantial saving in time and operating costs.

4. With Ethyl it is not necessary to lay up equipment for frequent carbon removal. Usually this job takes equipment out of service for a day. That wasted time is saved with Ethyl.

Executives of companies operating fleets of motor vehicles are invited to lookinto Ethyl's possibilities as an operating economy. Write to any of these offices:

Ethyl Gasoline Corporation, 25 Broadway, New York City; 56 Church Street, Toronto, Canada; 36 Queen Anne's Gate, London.

ETHYL GASOLINE



Knocks out that "knock"

©E. G. C. 1929

The Listener Rules Broadcasting

(*Continued from page 23*)

tain seemingly rigid limitations. There are manifold ramifications to the radio industry, but its chief economic functions may be said to be:

1. Service to the radio listener.
2. Service to the radio manufacturing industry, as a sales promotion agency.
3. Service to American industry in general, providing facilities to carry the message of the producer to the home of the consumer.

Of these, service to the listener is the most important. The purely commercial elements in broadcasting are predicated on giving the radio audience what it wants. This condition is responsible for the present high standard of broadcasting in America, and gives rise to an optimistic outlook for the future. Even if every vestige of idealism or altruism were removed from radio, even though it were to fall into the hands of a self-seeking monopoly, broadcasting would continue to be safe as an institution of service—for radio is made by and for the ultimate consumer, which is the radio audience.

The listener makes the program. If he doesn't get what he likes from his radio set, he will cease to listen, and there will be no sales of radio sets and accessories, and no use for broadcasting facilities to carry messages into the listeners' homes. The entire broadcasting structure rests upon the individual that turns the dials. If he is pleased, he is a potential consumer; if he is displeased, the structure topples.

Out of manufacturer's hands

FOR this reason, the manufacturer of radio receivers, speakers and accessories occupies an unusual position—the value of his product depends almost entirely upon agencies over which he has no control.

The radio receiver has no value, *per se*, other than its possible decorative aspects. Its desirability depends almost entirely on the programs put on the air by broadcasters. Thus, consumer acceptance is limited to the entertainment value of programs from the approximately 600 radio stations in the United States. Probably not more than two per cent of these are directly identified with the radio manufacturing industry. The others are only indirectly interested in the problems of radio production.

Superficially, it might appear that the manufacturer is leaning on a slim reed. However, he is amply protected because of the primary component in the radio structure—service to the listener. The broadcasting station is essentially and necessarily interested in presenting the best possible material for its audience, and therefore, willingly or otherwise, acts as a sales promotion agency for the radio maker.

A case of mutual interests

THE value of the broadcasting station is the program that emanates from it; the value of the receiving set is what it gets from the station. The interests of the producer of programs are thus identical with those of the producer of radio sets.

About two years ago, three companies interested in the production and sale of radio receivers and accessories, realizing that the quality of programs then available formed a definite limitation to their own business, determined to assure the value of their products by widespread broadcasting of fine programs.

This was the beginning of the National Broadcasting Company, first of the so-called "chains." It was formed by the Radio Corporation of America, the General Electric Company and the Westinghouse Electric and Manufacturing Company as an indirect sales promotion agency for the radio manufacturing industry. The broadcasting company was instructed to devote itself to presenting the best type of material, and through leased wires to transmit this service to enough radio stations to make possible the reception of its programs throughout the United States.

This has been done. The National Broadcasting Company is a stimulative agent not only for the business of its parent companies, but for all radio manufacturers, wholesalers and retailers.

Programs from studios in New York, Washington, Chicago, San Francisco and many other places are transmitted by wire to 68 stations scattered all over the United States. In the financial set-up, programs are of two classes—the sustaining program and the commercial program. Sustaining programs are produced entirely at the expense of the broadcasting company and are offered to the associated stations on the basis of an hourly charge. These sustaining programs comprise the heavy proportion of the broadcasting day and provide opportunity for dissemination of educative, informative, cultural and inspirational material. Frequently the amount contributed by the associated stations is insufficient to meet the cost of producing these broadcasts. Recently nearly $6,000 was spent in producing a new operatic work and the stations receiving the service contributed less than one-sixth of this amount.

The National Broadcasting Company is financed in part by the sale of a portion of its time to commercial institutions which produce programs including advertising. These so-called commercial programs are offered to associated stations, which are paid an hourly fee for use of their stations.

In this activity the National Broadcasting Company acts, in a sense, as an advertising representative for the stations which receive its service. Thus it obtains its chief revenue, designed to make the company self-sustaining. At present its operating income bears a satisfactory relation to operating expenditures, but constant improvement in quality of sustaining programs will require an increasing revenue. This revenue seems assured by the proved pulling power of radio advertising.

The ever-present threat

RADIO is undoubtedly on a firm financial foundation. The chief threat against it as an economic structure is progress in mechanical development. Overnight obsolescence of mechanical apparatus, due to engineering progress, is a sword of Damocles over the head of capital investment.

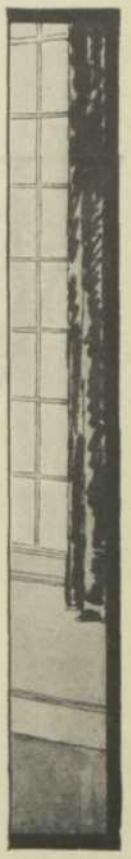
One of the chief contributions to the success of radio in America, as compared with European broadcasting, lies in the limited governmental restrictions on broadcasting here. In various countries abroad governmental supervision of, or participation in, broadcasting presents serious obstacles to real progress. America has as many radio sets as all the other countries put together, denoting a listener interest here fostered by freedom of speech and entertainment available on the air.

The growth of radio advertising is, without doubt, the most interesting de-

Quiet elegance that is *really quiet*



DESK BY COURTESY OF GENERAL FIREPROOFING CO



QUIET in tone and finish, quiet in their beautiful simplicity and grace of design, permanently quiet in their freedom from joint and dowel squeaks.

These are the qualities that make Aluminum Office Chairs a welcome addition to any office—no matter how simply or elaborately it is furnished.

Aluminum Office Chairs are different from any chairs that you have ever seen before. They are supremely comfortable, lovely to look at, so light that they can be rolled directly before the work at hand with the slightest impulse.

And they keep their comfort and elegance and beauty. Their welded-in-one-piece construction is as durable and lasting as the "modern miracle metal" from which they are made.

A booklet, "Distinctive Aluminum Furniture for the Office" describes and illustrates Aluminum Chairs in a wide variety of styles and designs.

Ask your secretary to write for a copy.

ALUMINUM COMPANY OF AMERICA
2425 Oliver Building, Pittsburgh, Pa.
Offices in 19 Principal American Cities



ALCRAFT

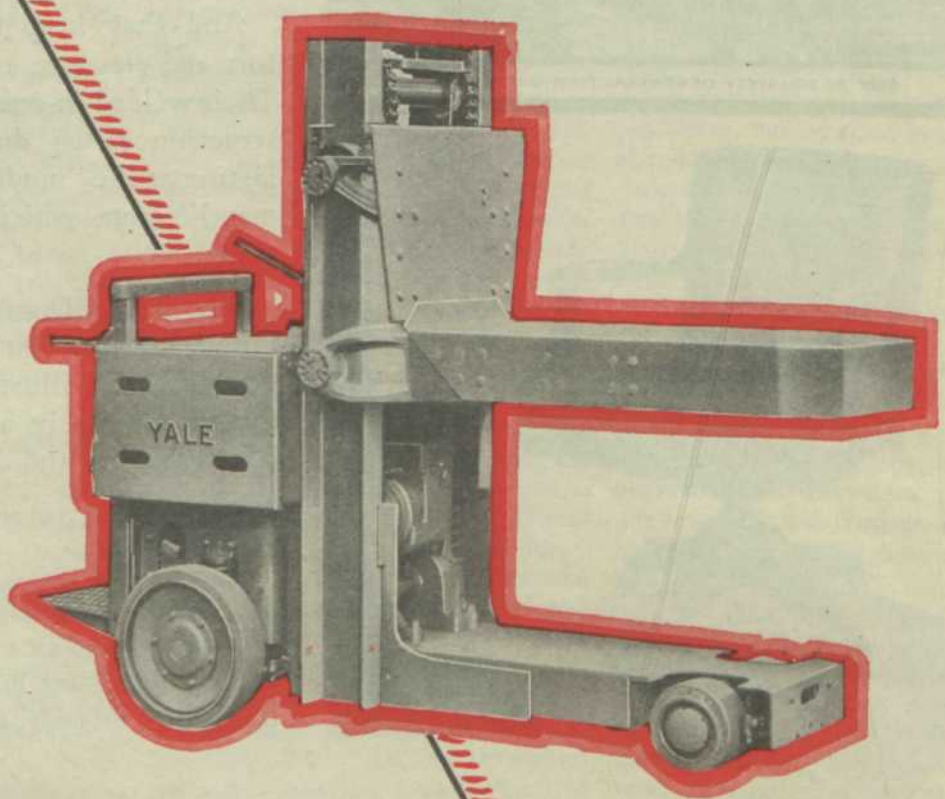
ALUMINUM
Office Chairs

TRADE **YALE** MARK

UNITED LINES

The logical merging of the Yale and Stuebing organizations — the powerful union of their skill, experience and manufacturing facilities has created a broad and comprehensive line of Electric Industrial Trucks, Tractors, Trailers and Hand Lift Trucks and Skid Platforms.

The extension of sales service now reaches all corners of the earth, and the



THE YALE & TOWNE
STAMFORD,

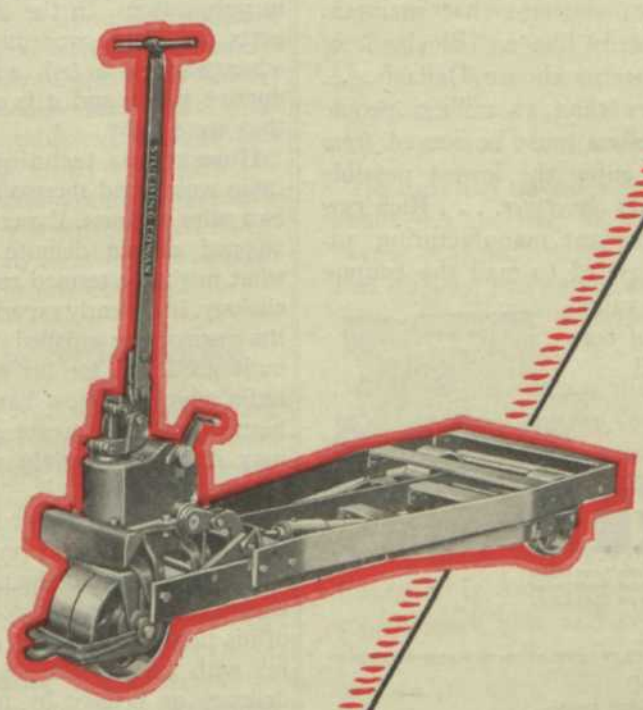
When writing to THE YALE & TOWNE

StueBinq

COMBINED SERVICE

great variety in the type and capacities of both Electric and Hand Lift Trucks, and Skid Platforms will have a far reaching effect upon every industry interested in the proven economies possible in the quicker and safer skid platform method of handling products.

Our plants at Stamford and Cincinnati welcome your inquiries.



MANUFACTURING CO.
CONNECTICUT

SERVE THE *GROWING* SOUTHWEST MARKET
FROM *DALLAS*—THE *CENTER!*

**SEARS-ROEBUCK
S. W. Headquarters**



AMERICAN BUSINESS CHOOSES DALLAS

as Southwestern Headquarters

AMERICA'S business leaders look to Dallas as distribution headquarters for the great Southwest market of Texas, Oklahoma, Arkansas and Louisiana. . . . The list of 1,921 concerns that maintain sales or manufacturing branches in Dallas reads like a "Bluebook of American Business." . . . Why did these concerns choose Dallas? . . . First, because the Southwest market of more than 12 million people and annual buying power of over 6 billion dollars must be served *from within* for maximum sales volume—and they enjoy the lowest possible sales and transportation costs by serving it *from the center*. . . . Rich raw material, labor and power resources add important manufacturing advantages in many lines. . . . Executives are invited to mail the coupon for "*Dallas—Distribution Center*," containing valuable distribution maps, market data and list of concerns now maintaining branches in Dallas. Mail it *now*.



Dallas

Southwestern Headquarters to American Business — 1,921 national and sectional concerns maintain branches in DALLAS.



Industrial Dallas, *Inc.*,
1429 Chamber of Commerce Bldg., Dallas.

Mail free copy of "DALLAS—Distribution Center" to:

Name_____
Title_____
Company_____
Address_____

When writing to INDUSTRIAL DALLAS, INC., *please mention Nation's Business*

velopment of its kind in recent economic history. Use of radio to carry the messages of American industry into the homes of the country had grown by 1928 to an industry estimated variously at from twenty to thirty million dollars. However, these appropriations for radio have caused no reductions in newspaper, magazine or billboard advertising.

In fact, in many cases national advertisers have measurably increased their appropriations for publication advertising as a result of promotive work done on the air. In addition, newspapers and magazines generally carry advertising of sponsored radio programs as well as a heavy volume of copy from radio manufacturers and dealers.

Of the investment for radio advertising in 1928, from ten to twelve millions were allotted to network broadcasting, and the rest to programs transmitted only by a single local station. There are three national networks. The National Broadcasting Company serves two of these, offering its programs to 68 radio stations. The Columbia Broadcasting System includes 43 stations.

How advertising is handled

ADVERTISING over networks is usually handled by recognized advertising agencies on a percentage basis similar to that for handling advertising accounts in publications. In the early days, experts generally condemned broadcast advertising as a fad, with little productive value; and it is quite probable they were right.

However, as technique advanced, radio was found increasingly desirable as a sales medium. Experience soon developed certain definite principles of what might be termed radio sales psychology. In the early experimental period the sponsor was satisfied if his programs built good will for his company. The radio advertiser now has learned that he may not only create good will, but may directly stimulate a demand for his product.

The paramount factor for the advertiser to consider is his program proper. The type of material he puts on the air should, if possible, reflect the character of his product or permit a logical "tie-in" with it. In music, he may suggest delicacy or beauty by using a string ensemble; a military band or an orchestra with preponderance of brasses might convey the impression of ruggedness or strength.

The general tone of the program may suggest speed, dependability, brilliance, stability, vigor and many other attributes. An excellent example is the pro-

gram offered by a ginger ale company. The orchestra includes a preponderance of banjos, giving a decidedly snappy effect. The selections are always swift moving and full of pep. The ginger and sparkle of the beverage seem reflected in the music. This similarity is further emphasized by the announcements.

One of America's most successful radio manufacturers has for years presented a weekly program of dignified music, employing the finest artists, and confining his commercial announcements to limited identification of the sponsor and his products. As a result, his radio receivers have shared this reputation for performances of high merit. Prospective purchasers of radio sets have often been astonished to find that this manufacturer's product is relatively inexpensive.

The radio advertiser considers the type of audience that consumes or might consume his goods. The maker of a high-priced piano broadcasts an entertainment designed to appeal to lovers of high-class music.

Conversely, of course, one would not present a program of Wagner or Mozart to promote the sale of ukuleles. Makers of goods for domestic use try to interest the woman audience, studying the type of program the average woman likes, and the periods in the day when she is likely to be listening.

Much has been learned and much remains to be determined as to audience reaction to radio advertising. Experiments are being continuously undertaken, errors rectified and general guiding principles established. A helpful factor is that radio errors are largely self-corrective. Programs or announcements out of harmony with the listener's interests are readily ascertainable through the letters to the broadcasters.

Criticism by correspondence

IN 1928, the National Broadcasting Company's networks received more than two million letters of criticism, favorable and unfavorable. This constant "trial and error" practice has built the background of experience by which experts may solve broadcasting problems. In the National Broadcasting Company a group of these experts, called the Planning Board, meets daily.

On this board are ten or twelve persons especially qualified by experience to help the radio advertiser obtain the maximum return for his dollar, experts on music, literature, drama, news, engineering, continuity writing, program building and balance, sales promotion, and others.

When a new advertiser is to present



"He bowled me over

when he proved that he could cut my drying costs right in half!"

"About a year ago a chap who called himself a Louisville Drying Engineer dropped in to see me. Said he felt sure he could reduce my drying costs, and asked permission to study my methods.

"You know, Fred, I pride myself on the efficiency of my plant, so I sort of laughed up my sleeve. But I told him to prowl around if he wished, especially as he said there would be no obligation.

"Well, I'm hanged if he didn't show up a few days later with figures to prove that he could cut my drying costs right in half. Showed me that he could reduce my fuel expense 43%, and, best of all, eliminate six of the seven men I had working in my drying room.

"He sure had me up a tree, so I hedged by asking what assurance he could give me that he was able to fulfill his claims. He answered by saying that his company had been in business for forty years, that it had satisfied more than a thousand manufacturers in fifty different industries, and that if necessary it would guarantee in writing the results which he promised.

"Well, the upshot was that I installed a Louisville Dryer, and it began to save money for me from the start. I actually believe it will pay for itself within twelve months from the time I put it in.

"Fred, if you aren't entirely satisfied with your drying process, I suggest that you get in touch with a Louisville Drying Engineer. It won't cost you a penny to consult with him, and he may save you thousands of dollars. Well, what do you say we go up to the diner and have lunch?"

LOUISVILLE
DRYING MACHINERY COMPANY.
Incorporated
Hull St. and Baxter Ave.
Louisville, Ky.
Cable Address: Loudry, Louisville, Kentucky

5 Ways
to cut drying costs

1 The first way is to permit Louisville Drying Engineers to make a study of your drying problems. They will recommend a Louisville Dryer which will . . .

2 Cut fuel expense from one-third to one-half in many cases.

3 Deliver dried material *continuously*, thus permitting of uninterrupted plant operation.

4 Cut the number of attendants needed to one in most instances.

5 Reduce the amount of floor space required as much as 80%.

When writing to Louisville Drying Machinery Company Inc. *please mention Nation's Business*

Play the SILVER KING

now only

85¢

And still the world's finest dollar ball

Many a golfer who thought the King a buy at $1 is rejoicing at this news!

And we take further pleasure in assuring the enthusiasts that the new price goes for the original King — the world's greatest distance ball—the world's outstanding quality ball—known and sold on six continents as "The King 'O Them All".

With the King selling at this new low price no man need deny himself the best in this year of 1929!



The Silvertown Company, London

• • •

John Wanamaker
NEW YORK
Sole United States Distributors

a program, the board surveys his organization, his consumers, his previous advertising experiences, distribution and merchandising methods, and other problems. From this data it evolves a program suited to the advertiser's problems and properly synchronized with his other advertising, "dealer helps," and methods of merchandising.

As with printed advertising, there appears to be a cumulative effect in regular and continued broadcasting. Good will seems to have a rather definite relation to the length of time the program has been on the air. In a popularity vote taken by the Washington (D. C.) *Post*, the first eight places were given to features that have been broadcast regularly for an extended period. One of the earliest pioneers in national broadcast advertising led the list.

The problems of how much shall be said, how often, and what proportion, if any, of "direct" advertising may be used on the air, are being constantly scrutinized. It appears almost impossible to establish a set of general rules. Each program must be considered with respect to the type of product advertised, the naturalness of the "tie-in" between program and product, and other variable factors.

Experience has given us one general principle—that of service to the listener. Just what constitutes "service to the listener" is sometimes rather difficult to determine. In the opinion of radio experts, the present general tendency is toward commercial announcements of too great length.

There are many reasons for this, not the least of which is the fact that many advertising agents assume, probably incorrectly, that their clients are eager to hear frequent and highly favorable references to themselves and their products. Dealers interested in the sales of the products are constantly urging more frequent and more direct sales promotive announcements.

A question of good taste

BUT THE wise advertiser realizes that if commercial mention is to be effective it must be in good taste or the radio audience will tune out. Good taste is, of course, controversial, but it might be termed selection of material creating a favorable impression on an unprejudiced listener.

As millions of persons of diversified tastes listen to the great coast-to-coast hook-ups, it is manifestly impossible to present programs which will be fully satisfactory to each person. But careful consideration of the demands of the average listener, on the assumption that he is unprejudiced, will usually dictate broadcasting practices which will please the great majority.

The American public is not hostile to commercial announcements if made in good taste. The radio audience realizes that much excellent broadcasting is sponsored by industrial institutions. It also understands that advertising revenue permits broadcasters to present other programs, not commercially sponsored, which would be prohibitive in cost if the stations had no assured income from advertising.

The public usually recognizes that the radio structure of America must be financed by advertising, government subsidy or contributions from owners of radio sets. It is content to let the advertiser do it.

European broadcasting lags

THE writer recently made a first-hand study of broadcasting in Europe. The art there is several years behind its development in America. This tardiness may be largely attributed to lack of adequate finances, combined with governmental limitations.

Radio interests abroad, although fearing to inject advertising into their own programs, generally agree that the American method of operation is basically sound and creative of great progress. The writer is inclined to believe that the European public would not generally resent commercial announcements if it received programs of the quality presented in the United States.

The American listener is logical and fair. He is willing to give the advertiser his few brief moments on the air, provided a pleasing program is broadcast. A vociferous but relatively negligible minority decries commercialism of the "free air." Their ancestors believed the world was going to the bow-wows when advertising appeared in publications.

But, most of us appreciate that we are able to buy a newspaper for two or three cents—a price far below the cost of production—because the newspaper derives its principal revenue from advertising. Most of us are willing to accord to radio, which we get free, the same privileges as to publications, for which we pay.

The listener feels that he has a proprietary interest in radio. He expects much from it, and the more he demands, the stronger grows the position of the industry.

Radio in America rests upon the most solid of industrial foundations—constant and consistent public demand.

...how far to "Main Street"



THE distance your product travels to reach the consumer is not measured by miles . . . but by the costs of distribution.

Intelligent direction of distribution and profitable selling in thin as well as rich markets requires constant reference to a complete story of current events. The happening in every territory, city, branch and state must be disclosed. The cost of merchandising and selling must be analyzed by men, expense, travel, warehousing and shipping. Powers tells you these vital facts about your business while they are still news and does it at a fraction of the cost of manually produced history. With them you have the only basis to determine the method of distribution, the efficiency of salesmen, the value of territories and the need of broadening or limiting your line.

Our complete booklet on this big subject is yours for the asking. Write for it today.

REMINGTON RAND BUSINESS SERVICE, INC.
Powers Accounting Machine Division
Remington Rand Bldg. Buffalo, N. Y.

ADAPTATIONS

Powers equipment is in general use wherever such work as this is done:

- Payroll and Labor Distribution
- Material and Stores Record
- Sales and Profit Analysis
- Insurance Accounting and Statistics
- Public Utilities Accounting
- Census and other Vital Statistics
- Traffic and Transportation Accounting
- Chain Store Sales and Inventories
- Federal, State and Municipal Accounting
- General Accounting

POWERS
ACCOUNTING MACHINES



Reg. U. S. Pat. Off. & Foreign Countries

PRINT NAMES AND WORDS AS WELL AS FIGURES

THEW

SIMPLIFICATION and Standardization—these are factors that mean as much to you as a buyer as they do from your own producing and marketing standpoint.

In investing the thousands of dollars necessary in a locomotive crane, or crawler mounted power shovel, or crane, it is well worthwhile to check the values made possible by the simplification and standardization of the individual manufacturer.

Thew, producing a complete line of such equipment, *builds to one basic design,* The Center Drive, whether for *gas, Diesel or electric power* and whether the machine is to be used as a *crane, shovel, clamshell* or *dragline.* This standardization means economies in production, lower costs to the buyer, and an easily serviced unit as any Thew Lorain owner will testify.

THE THEW SHOVEL CO.
Lorain, Ohio
Builders of power shovels and cranes for 35 years

THEW CENTER DRIVE



LORAIN 55-60-75

When writing to THE THEW SHOVEL COMPANY *please mention Nation's Business*

Advertising Has Some Foot Rules

(*Continued from page 58*)

sistible" brought a certain number of replies. But when the wording was changed to convey the idea "You can be irresistible," the replies were greatly increased. This is the art of words, and it plays a great part in advertising.

But those who measure the results of advertising scientifically find that we are led to behave as customers by something deeper, something that gives us considerable respect for ourselves, as sensible human beings.

What does the advertiser offer us for our money? What is his "proposition?"

Art can do much to attract our attention, and a good copy writer can hold it, but unless the proposition hits us where we live we pass on without doing anything with the coupon.

Let me illustrate this point with different appeals that were made with oranges, grading them in actual results, as shown in the number of readers who sent in coupons.

Orange juice is good to drink. But when we offered a home device for extracting the juice inquiries were few.

Tempting, savory salads can be made with oranges. But when we offered a free booklet of salad recipes to readers of the all-fiction magazines read by young folks, the number of requests was smallest of any audience reached. They would have behaved like good customers, however, if the proposition had concerned beauty or sports.

The field of best returns

A COOKBOOK offered for a price brought a good number of coupons from women reading the household magazines and more replies were received when the offer was free recipes.

But the best returns of all came from women who were offered information about orange juice in the diet of children and the family.

Quite in line with the laws of averages, because most women spend the greater part of their lives thinking about the health and happiness of the family.

A song publisher tells me that he caters to young people between 18 and 23. Those are the brief years in which we are good customers for sheet music, and the more sentimental the songs the better we like them.

Before our sentimental years, we are

interested principally in playthings and fun. After we get through the song period, we are concerned with making our way in the world and finding life partners. Around 25 the family life of the woman begins. Then she is interested in learning what is best for the children, and her husband. That lasts as long as the family, because her interest grows keener when grandchildren come.

With men as customers, the period of courtship is replaced by that of furnishing a home, then of buying one, then making money, next creating a background of appearance in a big car and a well gowned wife, and finally the period of prominence in community affairs, business leadership, society, sports.

The advertising man's task

THUS the job of the advertising man becomes one of making attractive proposals to these different people, or rather the same people at different times of their lives.

By the scientific method of measuring results he learns when, how and why people behave as customers, and is able to shape his proposals to interest them and bring in one coupon from maybe 500 or 1,000 readers.

An effective advertising proposition must meet an economic need. It must offer something that gives the public value in price, service or quality.

As customers, shopping in the printed pages, we are all decidedly "hard-boiled." We consider the proposition just as we would listen to a personal salesman.

If the advertiser or salesman is permitted to lie and to play upon our day-dreaming faculties, persuading us that black is white in the selling of something like a worthless "investment," we may be hypnotized.

But that kind of advertising is being prohibited more successfully every year. The vast volume of advertising is done for commodities that must be sold on "brass tacks." Art and words will help make the presentation attractive, easy to read and understand. But if the basic offer does not convince the public that it is going to get something advantageous in price, service or quality, the coupons will not be cut out and sent in, and the sales to those who do not bother with a coupon will not be made in the ratio that has been found to exist between sales and coupons.

We behave like customers only when we are treated as such by a business man who wants our patronage to the point where he is willing to work for it.



THEFT! *stop it..*

Some costly tools toted off . . . a bag of coal swiped now and then . . . a drum of oil carted away . . . a whole truck load of valuable yard storage materials stolen—over a period of a year the sneak-thief may get-away-with hundreds of dollars' worth of your property!

Stop these losses! Surround your plant with that unclimbable, impregnable "Guard of Steel"—an Anchor Chain Link Fence.

Anchor National Fencing Service is equipped to assist you with advice and complete erection facilities. Get in touch with the nearest of our 75 offices, now. Have the local Anchor Fencing Specialist call, or send you our Industrial Catalog.

ANCHOR POST FENCE COMPANY

Eastern Avenue and Kane Street - - - Baltimore, Md.

Albany, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Hartford, Houston, Los Angeles, Mineola, L. I., Newark, New York, Philadelphia, Pittsburgh, St. Louis, San Francisco, Shreveport.

Representatives in all other principal cities. Consult your local classified telephone directory.

ANCHOR Fences

MADE BY THE MAKERS OF AMERICA'S FIRST CHAIN LINK FENCE

When writing to Anchor Post Fence Company *please mention Nation's Business*

Could your business use an *extra month* a year?

Make Ediphones available to your office force and you will be amazed to see the staggering total of wasted minutes converted into hours of productive effort. Every average dictator gains a month a year. Secretaries also enjoy this time-gain because they no longer are obliged to write every letter twice (once in shorthand and once on the typewriter).

Let us prove this to you at your desk. Telephone "The Ediphone," your City, and ask for the book, "An Easy Way to Chart your Correspondence."

Ask for Travel Service

THOMAS A. EDISON, Inc.
ORANGE, N. J.



© T. A. E. INC.

Ediphone
Edison's New Dictating Machine
World-Wide Service in all principal cities
LONDON OFFICE: Vernon Place, Southampton Row

Radio Program Monday Evenings

Give the Contractor a Chance

(*Continued from page 32*)

handling of marble is done much more cheaply at the quarry, where machinery is available.

The operations at the quarry complete, then comes transportation of the pieces to the job. Any surplus material shipped out increases the freight charges and the tonnage to be handled by the trucks and job crew. Also any such surplus has to be chipped and filed away on the job by marble setters working at high wages and under most unfavorable conditions.

All this means that somebody has to make a layout of the marble job which will show just how each section of the wall space is going to be covered by individual pieces of stone. Furthermore, in most cases a separate drawing has to be made of each piece so that the men in the mills can cut the piece to its exact dimensions and polish the faces that are to be polished.

The cost of setting the marble depends largely on the accuracy with which the marble is cut. Consequently, the drawing of plans for the individual pieces is postponed until the building is under construction and final measurements can be taken from the building itself. But in order to make a close and intelligent bid on an item of this kind, a large part of the work of making a layout has to be duplicated as many times as there are bidders. This duplication costs somebody money.

A number of expert draftsmen and estimators must study the plans and read the entire specifications, because these specifications usually make the successful bidder responsible for all marble whether mentioned under the marble item or not. They have to see if there are 40 marble thresholds tucked away in the paragraphs devoted to tile work, flooring or, as in one case I recall, under the plastering specifications.

Had the architect assumed responsibility for mentioning all the marble work in the marble specification these men could have read two or three pages in-



After the first human beings had filled their stomachs they must have turned to the fashioning of some sort of shelter



The
only yardstick you can safely use . . .
FIGURES

WHEAT is valued by measure, cloth by the yard, and coal by weight; but your business is different. Regardless of whether you build, barter or buy, FIGURES remain the only yardstick you can safely use to measure your business.

Figures assembled from hundreds of sources at machine speed, with machine precision will measure all phases of your business at one time and give you the latest facts from which to fashion the future.

You are getting figures of course, but how? Are they daily, accurate figures, obtained economically by modern machines, or are they slow, unreliable and costly?

Remington Rand can help you. It gives you the combined knowledge of the leading manufacturers of accounting equipment. Remington Rand experts will analyze your accounting problem and offer an impartial solution. They will recommend, from over thirty types, the particular equipment best suited to furnish you with the necessary facts about your business.

The most complete adding and accounting machine service in America

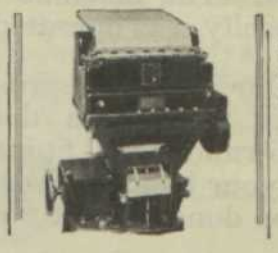
WHEN you phone Remington Rand you go to Headquarters. Remington Rand service is complete in every respect. The machine accounting experts who will answer your call will give you the benefit of proven methods—tested on the world's greatest proving ground of business practice. Consult them, they will show you the method and means that you may get the FIGURES and profit by the FACTS.



DALTON
The Dalton "Super Model"—handles nine columns of figures imperturbably. Electrically or hand operated. Other Dalton models for adding, subtracting, bookkeeping, ledger and statement posting.



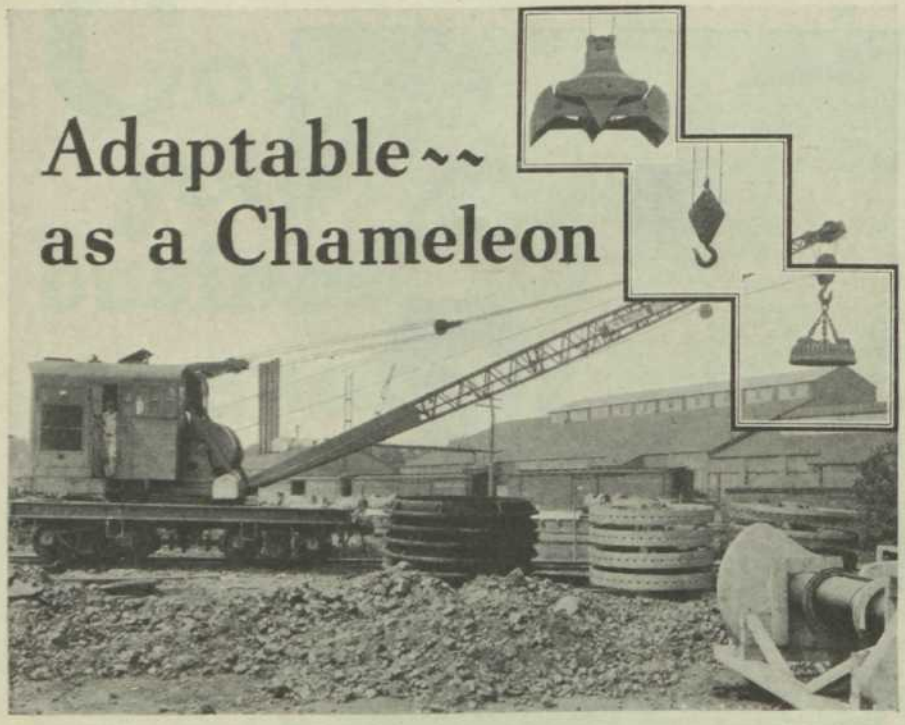
REMINGTON
This is model 23 with front feed of the Remington Line. Ledger and statements are posted at one writing. Perfect registration—proved accuracy.



POWERS
Powers Alphabetical Tabulator. Prints names and words as well as figures—from punched cards. Any accounting statement is more understandable—prepared faster—when Powers shoulders the load.

FIGURES - *The Yardstick of Modern Business*

Remington Rand
BUSINESS SERVICE
BUFFALO, NEW YORK



Just as a chameleon will adapt itself to its surroundings by assuming the color of the object on which it rests, so an Industrial Brownhoist locomotive or crawler crane will adapt itself to your handling conditions. It will travel anywhere it may be needed and will handle any kind of material that can be picked up with a bucket, hook, or magnet.

Handling is one of the most costly operations in the making of most products and the plants are few in number which could not reduce production costs by the proper use of good crane equipment. The change to bucket, hook, or magnet operation is quickly made and, even the smaller cranes, can be used for the moving of loaded or empty freight cars in addition to their handling duties.

Industrial Brownhoist builds the most complete line of these cranes that has ever been produced, in capacities ranging from 6 to 200 tons. The machine shown above is a 25-ton capacity, gas operated crane.

Our nearby representative will gladly explain to you in detail how an Industrial Brownhoist will fit into your plant layout and do your handling work better than it has ever been done before.

Industrial Brownhoist Corporation, General Offices, Cleveland, Ohio
District Offices: New York, Philadelphia, Pittsburgh, Detroit, Chicago, San Francisco, New Orleans
Plants: Brownhoist Division, Cleveland, Ohio; Industrial Division, Bay City, Michigan; Elyria Foundry Division, Elyria, Ohio

INDUSTRIAL BROWNHOIST

When writing to Industrial Brownhoist Corporation *please mention Nation's Business*

stead of a hundred or more. In other words, three-fourths of the expense we have been talking about could be eliminated by proper coordination for, though this is just one small item, the principle applies to practically every item in every building.

As I have said, this lost motion extends through the whole fabric of the industry. The plumber is doing well if he lands one job out of every ten he figures, so that the average overhead that he works under and which he must earn before he makes a dollar for himself and his invested capital is 20 per cent. With the electrician the overhead is nearer 25 per cent. I have discussed these percentages with responsible plumbers and electricians and I know that they are substantially correct. I likewise know that similar conditions exist with respect to all other trades which are ordinarily subcontracted and to the majority of manufactured articles employed. Half or more of these losses could be saved by proper cooperation and coordination between owner, architect, contractor and subcontractor.

Getting down to cases

NOW we come to the kernel of the reason for the disorganization of the construction industry, and the tax that this disorganization imposes.

Many architects and most owners believe they can save money by dealing with irresponsible contractors and relying for protection on a surety bond.

A surety bond is an instrument by which a surety company promises the owner that it will see that the work called for by the contract is completed. The almost universal charge for this service is 1.5 per cent of the amount involved. If a contractor who has $1,000,000 in the bank and who doesn't owe a cent undertakes a $5,000 job, the rate is 1.5 per cent. If one who has one dollar in the bank and owes $5,000 undertakes a million-dollar contract, the rate is 1.5 per cent.

There are, in my opinion, too many companies writing surety bonds. The competition among them results in the writing of entirely too many bonds on irresponsible contractors who take work at cost or less in order to keep their business going, meanwhile hoping that a miracle will restore them to stability.

In my own business experience the premium on surety bonds has been raised from a half of one per cent to 1.5 per cent, and this has nothing to do with the shrinking value of the dollar, because it is based on percentages of costs. Thus if a building cost $100,000

15 years ago, the bond premium would have been $500. If the same building cost $200,000 today, the bond premium would be $3,000. The $3,000 is part of the tax which owners pay for doing business with irresponsible people.

Bonding companies that are attempting to conduct their businesses along sound lines are greatly handicapped by the number of their competitors. If one bonding firm should, for instance, demand an audit by a certified public accountant as a prerequisite of bonds, without similar demands being made by the firm's eighty odd competitors, that company would probably suffer a complete loss of its business.

Too easy to obtain bond

ANOTHER weakness in the situation, as I see it, is that a great bulk of this business is handled by agents on commission. These bonding companies must depend largely on information gathered for them by these agents and this information is frequently colored to such an extent that a contractor has little difficulty in making bond, no matter how weak he is financially, how often he has failed, or at how much below cost he has undertaken a project.

There has been a great deal of complaint among responsible contractors because bad contractors and bad contracts are able to obtain the protection of surety bonds. The instant such a contractor obtains such a bond that bond is the equivalent of an unlimited credit ticket to purchase building material, regardless of whether the contractor doing the purchasing has the slightest legitimate claim to credit.

This has led to the next step in the chain of disorganization. Competition among building material dealers in various localities has led some of them into the practice of picking up jackleg contractors who will agree to buy exclusively from them. Then, by exerting their influence with owners and architects, the dealers get these contractors places on bidding lists.

Such a dealer promises in many cases, to furnish this contractor with the necessary pay rolls until his estimates begin to come in.

There is nothing philanthropic about such a course. In the first place, if the building material dealer's man is low bidder and is bonded, the dealer sells all the material and is sure of payment, either from the contractor or the bonding company. Coupled with the special collection rights conferred by lien laws of a majority of states, the dealer doesn't even have to maintain a credit depart-

COST CUTTING

FACTS

you should know



THIS book, Adventures in Redesign, will give you some interesting facts—fact stories which tell how many manufacturers have reduced their production costs.

It briefly tells how these manufacturers have, through the use of Pressed Steel, reduced weight, eliminated breakage, cut cleaning and machining costs, increased strength, simplified assembly, improved eye value and opened up new markets for their products.

It contains eighteen actual examples showing how YPS Engineers have helped cut costs for manufacturers in as many industries — stove, washing and ironing machines, gasoline pump, gas meter, oil burner, carbonizer, truck tank body, railroad section car, portable saw and many other industries—how these experienced engineers have redesigned the present products or assisted in the development of new products.

You can easily make use of this COST CUTTING service—without the expenditure of a single dollar —without the slightest obligation.

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ment. All he has to do is to sell the goods and either the bonding company or the state will collect for him.

A lien law, I might here explain, makes the real estate on which a building is being erected, responsible for the payment of all bills for material and for the wages of all labor entering into its construction. There is a basis of common sense in protecting the labor bills, but I see no more reason for special legal protection for the man selling cement to a contractor to put in a building than there would be for special legislation to protect the grocer selling bread to a man to put in his stomach.

It would seem that as contractors are protected along with every one else they would as a class favor lien laws. I have yet to find, however, a responsible contractor who would not welcome the total abolishment of all lien laws as they apply to anybody but actual wage earners.

The main reason for this attitude is that the abnormal protection such laws give material men, coupled with the prevalence of bonds on bad men and bad contracts, has fostered most of the evils which breed irresponsibility in the industry and attendant lost motion and costly disorganization.

The responsible contractor hasn't a chance to outbid a man who has nothing to lose, who plans to skin the job in every way, and who, if he still can't make out, intends to gather what cash he can (usually one month's estimate) and walk off, leaving the bonding company to finish the poor building and pay the material men.

The owner takes the loss

THIS is perfectly satisfactory to the material man involved in such a deal. He has made his profits and collected his money, and he isn't blamed for the exorbitant maintenance charges which the owner must pay during all the long years of the building's life. That contractor walked off with the blame, as well as the money, when he moved to other parts to repeat his performance.

I have stated that these conditions render material dealers independent of responsible contractors. As evidence of this I cite the fact that it is a common practice for material men to refuse to make any price differential between owner and contractor or, in most cases, any differential based on quantity used.

This situation is only possible because the dealers are protected by the manufacturers on certain items, as for instance, cement. To illustrate, let us suppose a contractor undertakes a very large job in a town which we will call Bluetree. Let us further suppose that the contractor is well rated and has more capital and will use more cement during the course of his job than any dealer in Bluetree. Now suppose that by entirely separate and individual processes every cement mill within economical shipping distance has arrived at a price of $2.25 per barrel for car-load shipment of cement to Bluetree and that all the Bluetree material dealers have independently decided to add 25 cents a barrel on car-load shipment from the mills direct to a contractor.

Under these conditions our contractor will inquire for a price from every available cement mill and each mill will promptly quote him $2.50 a barrel and, unless he is able to start a price war, $2.50 is what he will pay, whether he buys from a dealer or direct from a mill.

Irresponsibility is fostered

THE average contractor does not begrudge fair compensation for services rendered, but he resents a system that denies him any consideration for responsibility or quantity purchase in respect to an essential commodity, particularly when the dealer oligarchy which is created automatically by the system uses its power to foster irresponsibility in the industry.

The situation I have described is typical. If you cite me one place where the responsible contractors and the responsible dealers are cooperating for the betterment of the industry, I will cite you ten Bluetrees.

If it were true that an owner could step out and erect a building as well and as cheaply as a capable contractor, there would be no place in the industry for the contractor and he would promptly disappear. The fact is, however, that the contractor does render a service. He assembles the material and competent labor necessary to complete a project. Further he sets and maintains units of costs, which are beyond the possibility of any casual organization. He also protects the owner against such items as increasing costs during construction, delay in completion, injury to workmen, injury to adjacent property, damage from the elements, imperfect material and workmanship, dual payments under the lien laws, fire and theft losses, and shortages of labor, material and transportation.

It is the duty of the contractor to better his service to the public, and to do this he must have the help of his public. If architects and owners persist in putting irresponsible contractors in

We cordially invite anyone interested in the manufacture or sale of fractional horsepower motor appliances to inspect personally our factory and facilities.



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APPLIANCE manufacturers who deal with The Domestic Electric Company soon learn that they have really gained the services of a *new department* . . . rather than a mere source of motor supply.

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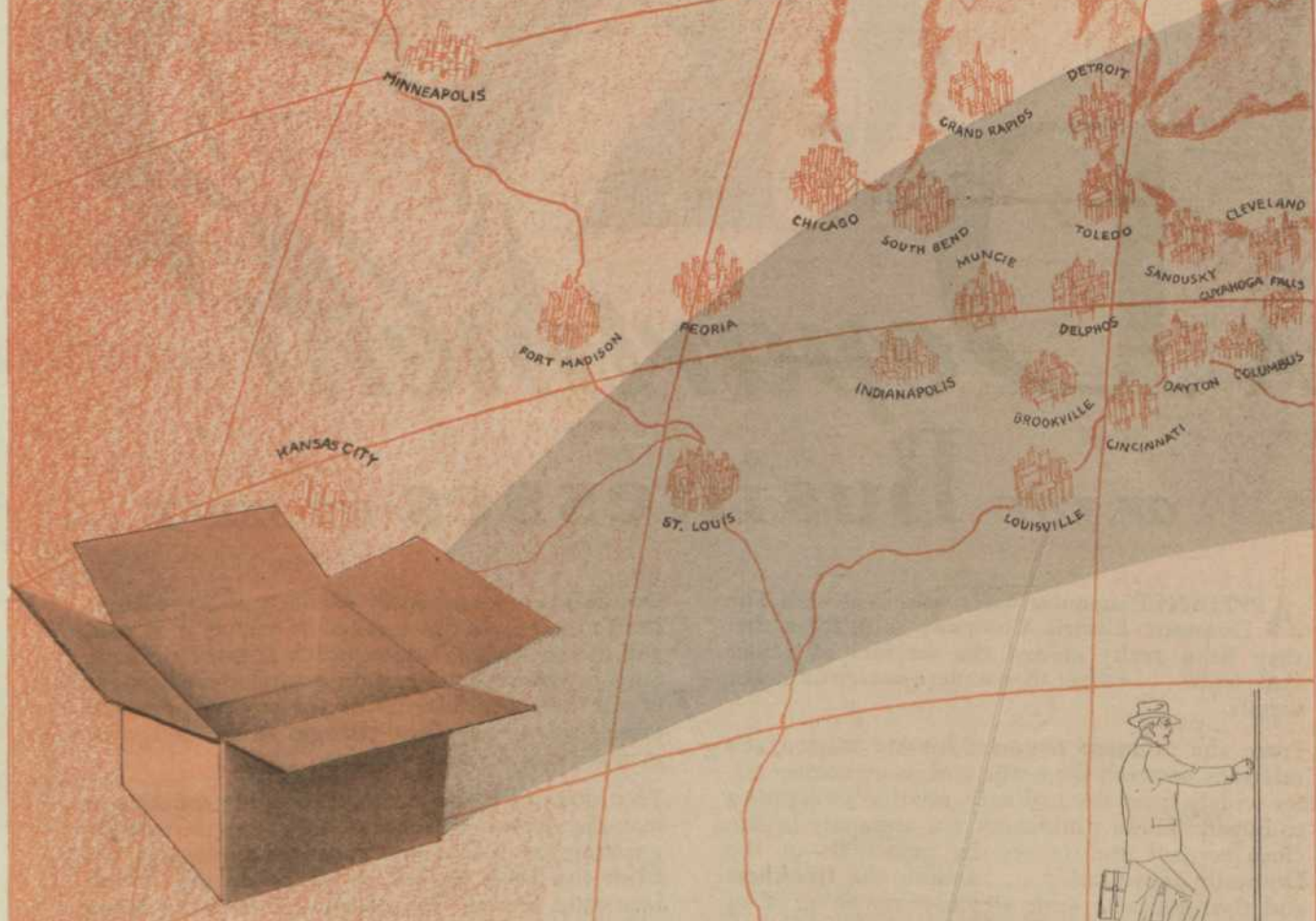
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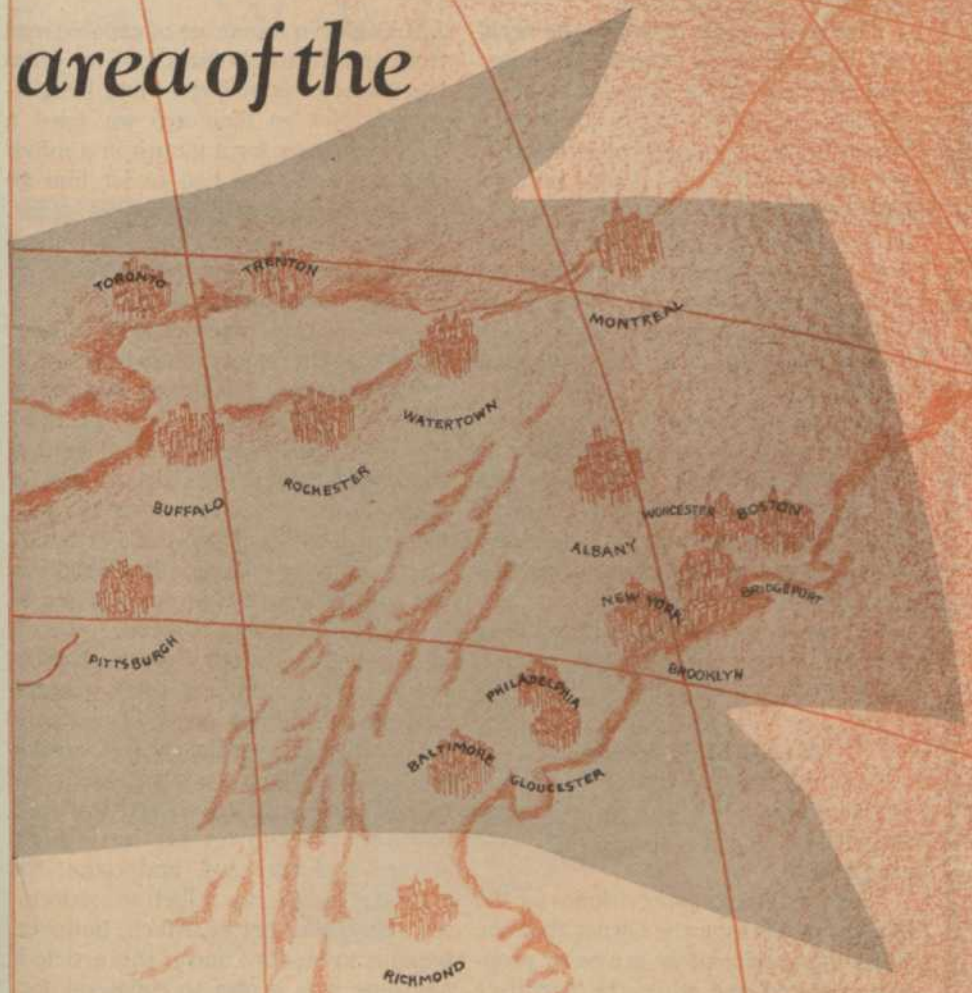
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ON MACHINERY?

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"We have apt and teachable help. We have an abundance of raw materials. And we have developed many lines of manufacture that require heavy purchases of machinery. Wouldn't we rather purchase 'close by' and save heavy freight bills?"

Already a healthy start has been made here. Machinery and supply manufacturers who have located here have busy factories and no serious competition from outside.

Particular advantages are offered makers of textile machinery, woodworking machinery and agricultural implements.

How rich and active this market is may be gained from the fact that in one industry alone the Piedmont Carolinas' machinery *freight* bill reaches $500,000 yearly.

The manufacturer who divides that saving with his customer will meet little sales resistance.

Do you want the facts? Address Industrial Dept., Room 130, Mercantile Building, Charlotte, N. C. Your inquiry will be answered promptly and courteously.



DUKE POWER COMPANY

SOUTHERN PUBLIC UTILITIES COMPANY AND OTHER ALLIED INTERESTS

competition with responsible ones this waste in the industry must continue.

If the practice of putting out ten, 15 20 or more sets of plans on a competitive letting instead of four or five is continued the public in the long run will pay for the useless waste from this multiplicity of estimating costs.

The relationship between the architect and builder as regards the inspection of work is far from satisfactory. The usual attitude of the contract documents is that the architect is a sort of policeman whose duty it is to hunt for and punish any deviation from the more or less imperfect plans and specifications. And, unfortunately, in the many cases in which they are forced to do business with irresponsible low bidders, architects are often forced to descend to this.

But it is an error costly to the building industry as a whole for architects to apply this yardstick to all contracts and to seek protection at the expense of the capable contractor by inserting in the documents a general disclaimer of responsibility for prompt and decisive inspection or for prompt and final decision in regard to questions submitted to them.

A typical illustration

TO illustrate, the following two paragraphs from a typical specification form are given:

"The Architect's supervision is for the purpose of assuring the Owner that the plans and specifications are being properly executed and while the Architect and Engineer's Superintendent is instructed to give the Contractor all desired information and assistance in interpreting the plans and specifications such assistance is not to relieve the Contractor from any responsibility for the work."

And again from the same document:

"It is not incumbent upon the Architect and Engineer to notify the Contractor to begin, to cease or to resume work, nor to give early notice of the rejection of faulty work."

Now in practice these and similar clauses mean that the architect proposes to put a man in charge of the inspection of the work. It is implied that the contractor is to go to that man with the numerous little questions which arise on every job where a certain thing may be done in two ways, where two clauses of the specifications conflict, or where the notes on the plans vary from the specifications. It means further that if that man tells the contractor how to proceed and he follows his instructions, and it turns out that the job would have been done better the other way, the contractor can be made to change it or allow a credit for letting the work remain.

A bad penny comes back

I HAVE seen a number of capable men from architectural offices, but too often the inspector is inefficient and inexperienced. Not so long ago we tried a young engineer for a month in a minor capacity and then had to let him go because he couldn't make the grade. Imagine our surprise when he walked on the same job two weeks later as superintendent for the architect.

That all this increases cost without improving the quality of the work seems beyond dispute. It is not so easy for an owner to see how these things affect him. However, if he will consider that the contractor uses his actual cost of doing similar work in pricing his estimates and that every bit of lost action and unnecessary expense lands right in the cost figures, the owner will see at once just how his ox is gored.

During the past ten years much progress toward eliminating these wasteful influences has been made through the cooperation of capable and responsible contractors. Along the lines of self-education, the results have been startling. Methods and practices have been studied and analyzed, and today the industry is offering a better performance than ever before. Much, however, remains to be done and if this article is anything it is a plea to collateral factors to cooperate with the responsible contractors in the industry to remedy these evils.

As contractors we need the assistance of bankers, financial institutions, and others in ridding the industry of its present loose credit practices. We need the assistance of architects and engineers in eliminating irresponsible bidders and in recognizing worth and service. We need the assistance of manufacturers and dealers in adopting such price policies as will protect the legitimate contractor and we need above all such measure of confidence and respect as we are entitled to.

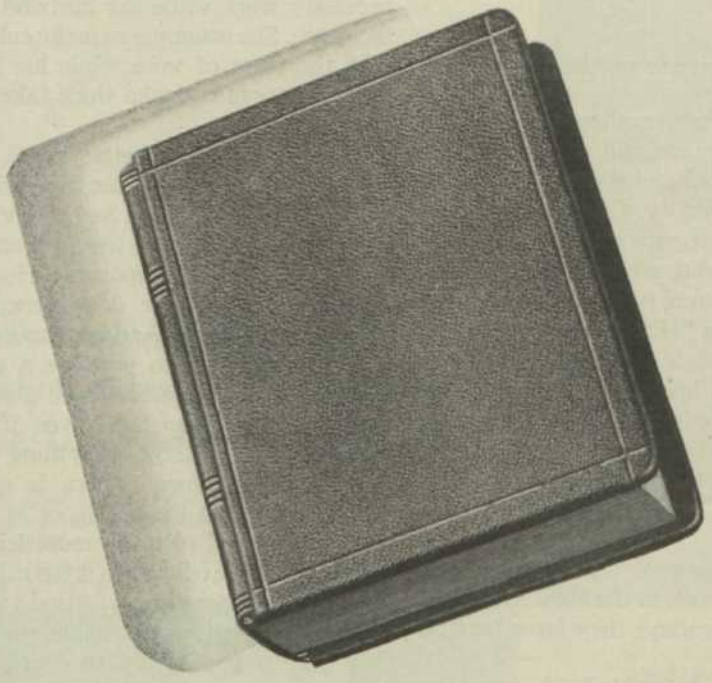
I have mentioned here a few but by no means all the evils which have beset a great industry for many years. That they will be corrected, I have no doubt.

When?

In my opinion just as soon as the building public abandons the idea of trying to get something for nothing and adopts the policy of paying a fair price for an honest service.

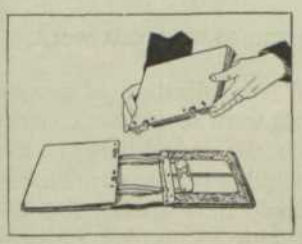
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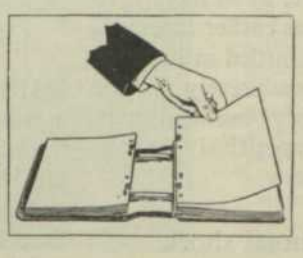


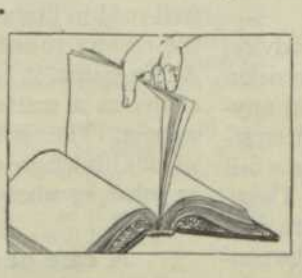


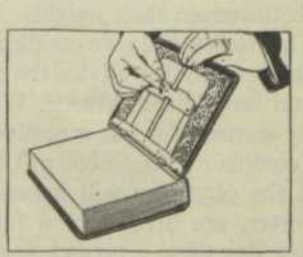
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The Sedentary Age

(*Continued from page 37*)

mensely diminish the number of books published.

But when one comes to commodities that are really useful, such as bread, one sees the absurdity of the suggestion. If the farmer were also the miller and the baker, most of the bread would be three weeks stale before it was eaten, let alone the fact that the type of skill required for milling and baking is quite different from that required for farming.

The painful fact is that work is efficient in proportion as it is boring. To do the same thing every day is to do it well, and to wish never to do it again. So far as the bulk of the world's work is concerned, there is no escape from this disagreeable fact, at any rate in the near future.

The most highly skilled work can be varied and therefore interesting, but machinery has not yet reached the point where all work is highly skilled.

The mechanical millennium

PERHAPS in time it will. Perhaps in future ages everything that a man could do without using his best faculties will be done for him in some mechanical manner.

The consultant, for example, will keep a Robot to deal with the women who wish to reduce their weight.

This Robot will give excellent advice, in fact exactly the advice the physician would have given himself. When anybody comes who has a really interesting complaint, the Robot will ring a bell and the physician will appear. These, however, are dreams of a future age. In our day there is no escaping the conclusion that the bulk of work must be monotonous and uninteresting.

The inevitable inference is that there ought to be more leisure for pursuing the kinds of work that can be called hobbies. The power to use leisure intelligently is one of the tests of a civilization; it is a test in which the Continental nations come out better than the British, and in which, if I am not mistaken, the Americans come out rather badly.

If our standards of value had been slightly more enlightened, we should have used the greater productivity brought by modern methods not only to produce more goods but also to obtain more leisure. As it is, almost everybody works too hard, and, as a consequence, does not know what to do with a holiday when it comes.

One reason for inability to use leisure sensibly is the fact that from the earliest years competitive success has been presented as the only motive for exertion. Consequently all the motives which lead men to do work solely from pleasure in the activity or in its product become atrophied.

A wage-earner mathematician

IN THE less industrialized parts of England working men still take a pleasure in their gardens and the result is a great deal of real beauty. Green, an eminent mathematician, was an ordinary wage earner who did all his mathematical work for pleasure of an evening. James Mill wrote his "History of India" in his spare time.

If working hours were shorter, such cases would be less rare. But apart from exceptionally strenuous examples, there are all kinds of desirable occupations for leisure hours—music, the drama, home reading.

Such things were taken for granted by educated men in the eighteenth century, but nowadays they have become exceptional.

Outside academic circles few men are well-read in literature. Most men go to the theater to see legs rather than art. As for music, it is regarded in business circles as a matter exclusively for the women. The ordinary business man spends his leisure competitively, in golf, or poker, or what not.

A case of mutual shock

THE idea of merely enriching his outlook on the world in a manner that involves no victory over anyone else has become incapable of attracting him. It is customary in the more conservative circles in America to teach admiration for the Fathers of the Republic, but if Washington or Hamilton were brought in contact with his admirers today he would, I fear, be pained by their lack of culture, while they would be astonished and secretly shocked to find him possessing many graces that they had regarded as purely feminine.

This is another respect in which specialization can be carried too far. The view that men should be manly and women should be womanly is not one that was introduced into the world with machinery, since it is many thousands of years old. It has however, found new application in the modern world. In old days the woman who was at the head of the household had an immense amount of work to do.

Nowadays the married woman who lives in a flat has not nearly enough necessary work while her husband has too much. She attempts to make culture take the place of work while her husband attempts to make work take the place of culture.

It would be much better if she had enough work to prevent her from taking culture so seriously, and he had enough leisure to prevent him from regarding culture as wholly unimportant. Human beings need for their development a diversity of interests and occupations.

It is impossible to produce a good community by combination of a number of narrow specialists, even if between them they know everything that ought to be known. There is quite enough wealth in the world, or at any rate in America, to make more leisure possible, but the education is too utilitarian and the generally recognized values are too competitive to enable men as they are to use leisure to much advantage.

Getting away from work

NARROW specialization is necessary in work, but work should not constitute the whole of the serious part of a man's life. He should have considerable leisure and he should have the kind of tastes that lead him to employ his leisure fruitfully.

Civilization, after all, is not a matter of mechanical contrivances; it is a way of thinking and feeling about life.

Plato and Shakespeare, in spite of never having a bath and being unacquainted with electric light, were more civilized than the most luxurious modern is.

Intoxicated by machinery, our age has attempted to objectify its values, but this is a passing phase which we shall outlive when the honeymoon of mechanism is past.

Values reside not in material contrivances, but in the mind, and in the relations of human beings one to another.

A DRYDOCK FOR THE LINERS OF THE AIR

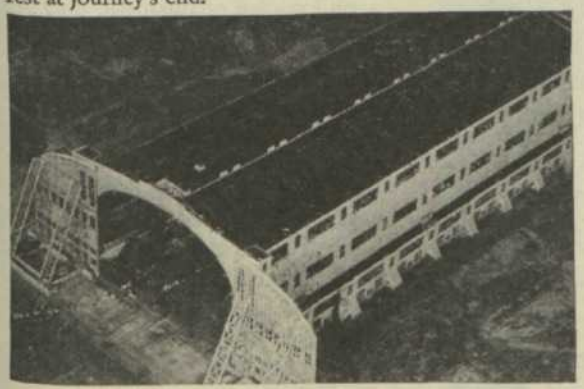




The U. S. Navy Hangar at Lakehurst, N. J. Due to wind pressure the J-M roof on this huge building must meet conditions far more exacting than those encountered on usual buildings. Yet there has so far been no upkeep expense. This view shows the Los Angeles leaving the great hangar.

Johns-Manville Built-up Roofing Safely Covers the Vast Hangar of the Los Angeles at Lakehurst

THE great liners of the air, the Los Angeles, and her overseas cousin, the Graf Zeppelin, swim like tireless silver fish through the trackless blue. But like the slow going ocean liners these great ships must have care and rest at journey's end.



The huge hangar of the U. S. Navy at Lakehurst, N. J., provides, not only safe harbor for these amazing craft, but also for a pair of blimps which a few years ago would have been thought giants themselves. Since it was built in 1921, this remarkable building has been protected by 300,000 square feet of Johns-Manville Super Class A Roofing. Impervious alike to driving rain or blazing sun, fireproof and weatherproof the J-M roof protects this enormous building, and the millions of dollars of property it shelters.

There is only one hangar such as the one at Lakehurst, yet there is a J-M roof suitable for it. There is, in fact, a J-M roof suitable for any building, large or small, permanent or temporary.

Johns-Manville has ended doubt in roof selection by providing a sufficient variety of roofs. J-M engineers have perfected, and offer you, more than twenty distinct types of Built-up Roofing. Among these roofs is one exactly suited to any building you may own, whatever its uses, and wherever it may be located. And besides their known ability to meet specific conditions, these J-M roofs are also definitely rated as to length of life. You can, at your option, have a roof covered by a surety bond for 20, 15 or 10 years or an unbonded roof.

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A J-M roofing expert is available for consultation without cost or obligation. He can give you impartial advice, because Johns-Manville makes both asbestos and asphalt roofs, smooth or gravel topped—roofs suitable for every building and every purpose. Our specialist will answer your questions, and make recommendations. You, of course, will select the roof that will best meet all your requirements.

When the right roof has been chosen a J-M Inspector checks every detail during application, and afterwards makes inspections at regular intervals. Thus Johns-Manville provides the right roof for your job, sees to it that the roof is properly applied and subsequently kept in good condition. Every J-M Bonded Roof is guaranteed by Johns-Manville and also by the National Surety Company for an agreed-upon term of years.

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BU-43-9

Chains Have Evils, Too

(*Continued from page 34*)

price warring have been weapons of retailers for many years. Ethics do not change a bit just because you happen to be running an organization that has a hundred or a thousand units instead of one.

The proprietor of a country town drug store who clips a few cents off his ice cream in an attempt to take trade away from a confectioner down the street is just as culpable as a chain which does the same thing on a national scale. The difference is only in degree. Retailers of every type must realize that business done without profits or at a loss is not just a sort of marking time. It is injurious to themselves, to competitors, to producers, and to the public.

Lest I be misunderstood on the subject of price, let me say that I am strongly in favor of low prices. Exorbitant or unreasonable profits should be avoided. Every mark-up should be figured on an accurate cost of service in all handling, plus a reasonable profit. Some chains today are endeavoring to make too great a net profit. Legitimate competition will see to it that such a state does not long continue.

Chain methods are by no means as efficient as they will become but still they are reasonably good. As they improve, a good share of the savings should be passed on to the public. Unless this is done, the organization is not keeping faith with the public, for it is implied in mass merchandising that economies in operation shall benefit the people.

The manufacturer should follow somewhat the same policy. Unless he finds better and cheaper ways to turn out his product and improve his marketing methods he is not a modern American manufacturer. He must be alert and alive in this day of change. The more he concentrates on improving his article and lowering his costs, the less will his marketing problems worry him.

I have been asked whether or not I would deal with chain stores myself, if I were a manufacturer. I would, but not to the exclusion of every other form of outlet. It seems to me that a properly balanced manufacturer would also sell to selected wholesalers equipped to do a worth-while job of handling merchandise. He would find enough of these left to do a fair percentage of business through them. Also he would see to it that some of his own salesmen went to retailers to keep in touch with the new channels opening up constantly.

Most important, perhaps, he would adopt the attitude that he offered the trade a real opportunity when he asked for patronage. I am sure he could do that because some of the most successful manufacturers are using such a philosophy of business, and are finding it sound.

Needless to add, he would grant no special concessions, nor would he trust the firms which asked them. He would do business only with firms that were making money, carrying on at a profit, and save himself a lot of grief thereby. An illustration may make my meaning clearer.

A large drug chain, I am told, approached the manufacturer of a widely known soft drink. The chain buyer said he wanted to buy direct in order to save wholesaling costs. The producer was willing to try it. Then the buyer asked that each barrel be placed in the cellars of the drug stores and tapped. This was conceded.

Then the drug buyer asked a special dispensation fee of five dollars for each fountain, saying that for this fee each soda clerk would ask the prospective customers if they would care for this particular drink. The soft drink people thought of added volume, and decided to risk this, too. Then the drug chain man asked for expen-



If no one had taken a chance, we'd still be dodging



WHEN THE WINDOW WASHER COMES

The window washer has just left my office after his weekly visit to remove the grime that the city's smoke leaves.

Because he was here and had the windows wide open, I found a film of black dirt upon my papers, covering my desk and the furnishings of this room.

In other cities that I know, the dirt and soot that blow in while the window washer works are much more than in Philadelphia. In some cities it is less. But in every city the amount will continue to increase as the city grows, if the smoke nuisance is not curbed.

Costly to human efficiency and human health is that cloud of smoke, just as it is a burden upon American pocketbooks that is estimated to amount to $500,000,000 a year. It defaces beautiful public and private buildings, depreciates stocks of merchandise, stunts vegetation and plays a steadily growing part in making a city a poor place to live.

It is the privilege of Reading Anthracite of 1929 to aid in keeping your city clean, for it is smokeless and sootless. Your coal merchant has it or can get it.

A. J. MALONEY
President

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Special Production Machines has devoted itself to the task of helping manufacturers who face this situation by designing and building special machines to fill special needs . . . Production processes that had formerly been regarded as too complicated to do automatically are now being done in many well known plants throughout the country by efficient machines designed by our engineers and built in our plant . . . In some plants our engineers have redesigned and improved existing machines, or made semi-automatic machinery completely automatic. Our work has embraced the solution of practically every conceivable type of production problem in practically all industries. In nearly every instance we have been able to help the manufacturers we have served to save money, speed their production, and often to improve their product.

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A Division of PNEUMATIC SCALE CORPORATION, LIMITED

For over thirty-five years Pneumatic Scale Corporation, Limited, has manufactured automatic labor-saving machinery for many of the world's largest producers of merchandise.

sive store signs, and got them. Next he demanded a five dollar fee for each soda clerk employed. This, too, was given. When the drug chain buyer tried to extort $50 as a special fee for each fountain, the soft drink producer refused to do business with the chain.

Some may hold that the chain was asking only a reduced price on volume. I dislike such procedure because it seems to me to be so arbitrary as to disregard absolutely the rights of the producer. This particular incident comes to me second hand, but it seems to be just the sort of thing which is reaping the whirlwind for chain stores. Whether it be an independent or a chain that's guilty, I hate that type of business conduct. It is such a cheap substitute for efficiency.

Some chains grow up naturally, expanding according to a well-thought-out policy. Others are a mushroom growth, promoted only for stock manipulation and quick profits. The public will realize too late that these are financed on the reputations, slowly and laboriously built up, of older, more ethical chains. Banking on the public, as these speculators refer to their practice, is dangerous and usually expensive to the public.

Brokers who float loans for rapid chain expansion may well proceed with caution. A quick profit on the sale of stock may yet prove a costly venture for more than one brokerage firm.

In spite of any evils of chain-store merchandising, I am optimistic about its future. I see future retailing divided between chains and efficient independents. Each will exist, and on a basis of better relationships than at present.

For helping to eliminate the weak and shiftless retailers who have for so long cluttered up the distribution field, I think that efficient independents should pass a vote of thanks to the chains which are responsible. Yet before the chains can expect complete good will, they must so order their own affairs that they deserve universal respect.

Chains Help the Wholesaler

By S. M. BOND

President, National Wholesale Drygoods Institute

COMPETITION may be a good thing, but fear of competition is not. Dread of the chain-store "menace," as some retailers would put it, is one of the worst obstacles to progress that modern merchants have to face. Many capable retailers who have run their businesses successfully for years are now permitting this new element in distribution to weaken their confidence in their own ability to maintain their position of leadership in their community.

At first glance it would appear that wholesalers would be vitally affected by such an attitude toward the chains. In some cases they are. A few wholesalers are as worried over chain competition as the retailers themselves.

Yet, this element of fear on the retailer's part may be turned to the advantage of the wholesaler. Instead of removing him from the picture, it makes him more of a leading character than ever before. Today he is more than a link in the old line distribution chain. He is the hope and the salvation of independent retailers.

A well known musical comedy star in a recent production says to the young heroine who is weeping on his shoulder, "Now stop your crying, Mary. It only brings out my rheumatism." So it is with the wholesaler and the retailer. There is no sense in either one crying about conditions, for the only result possible will be that it brings out the rheumatism of the other.

Many of the hardest jolts business men have received recently have been disguised blessings. Take hand-to-mouth buying, for example. When it came into greater acceptance following the war, it seemed as though wholesalers were caught between two forces, and were going to get the worst of it. It made buying much more difficult, and brought with it a host of new problems, such as more broken packages, orders in very small lots and other puzzles. But in the end it only served to show the vitality and necessity of the wholesaler. The retailer who was slipping came back because no economies were possible in buying direct from manufacturers in small lots. It gave a new emphasis to the services wholesalers were performing, and started the retailers to a new appreciation of these benefits.

The lesson from the chains

THE retailer, too, found that buying in smaller lots required less capital, allowed more flexibility and made unit control and turnover seem much simpler. Wherever it lowered the costs of distribution, it was a distinct aid to the public, and manufacturers are not suffering to any appreciable extent from the effects of the new tempo in buying. As a whole the tendency is sound.

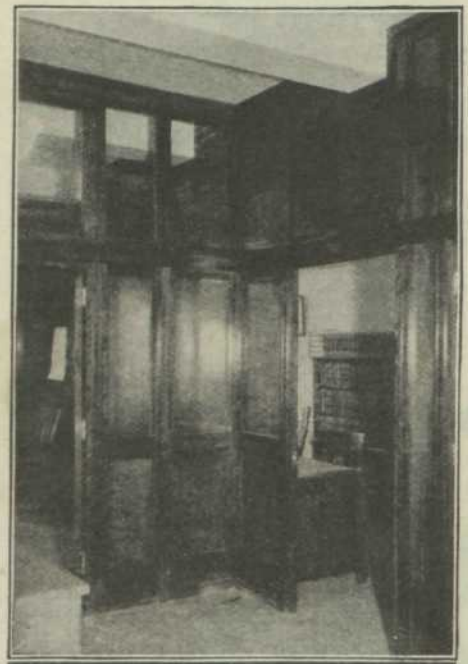
Wholesalers for several years have been subjected to attack by manufacturers who feel that not enough attention is given specific articles. The wholesaler is torn between two extremes. Either he is to be the selling agent for the manufacturer, or the purchasing agent for his own customers, who in turn serve his community. Any large department store is faced with much the same problem. The wholesaler must effect a harmonious solution. In most cases he can, unless the manufacturer takes a wild rush for volume, and sells direct to the wholesaler's customers at the same prices, thus putting his product into competition with itself.

The wholesaler is not going out of the picture. He was on the scene long before any one paid any attention to chain stores, and he will be very much in evidence as long as the modern standards of living are rising or even stay where they are now.

When a business gets sick, the remedy is often right at hand. So it is with much of the wholesalers' distresses which are getting so much publicity. The cure for the ailing conditions of wholesalers, in the relatively few cases where they are actually ailing, lies right on the desk of the sales manager. In the statistics of any well managed business may be found clear evidence of what's wrong.

A few easy strokes of the pencil, and any novice can tell whether a customer is profitable to the wholesaler or not. Is a salesman bringing in a fair proportion of business for the amount paid him? This can quickly be told right at the sales manager's desk. Is an item turning over fast enough or should it

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No matter how soon new office layouts are needed—they can be obtained with Circle A Partitions. These sectional and movable office walls are rearranged at an astounding rate of speed. A complete industrial plant can be changed around in a few days' time—at little cost, with no litter, dirt or confusion. Construction is so simple—assembled with tongue and groove joints forming solid, substantial, good-looking walls.

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be sacrificed and dropped from the stock? Is the stock arranged to facilitate handling according to frequency and volume of orders? Again, the answer can be read in the records. How much of the territory covered is profitable? Not guesses, but facts and figures, are as near as the statistics.

The thinking wholesaler need not call in a business doctor to tell him what is wrong with his firm. He can find the answer for himself, much of it in a new interpretation of just what his own records mean.

No problem the wholesaler has is more vital than that of giving adequate aid and counsel to retailers. No one else is in as good a position to become guide, philosopher and friend to retailers. If retailers are the shock troops of business, as they have been called, then wholesalers are the logical agents to plan the campaign and arrange the battle front strategically. How well they assume this responsibility, or opportunity, is squarely up to the wholesalers themselves. Retailers are eager to get help, and a glorious chance to establish healthier relationships is opening up.

If independent retailers pass out, so will wholesalers. At the very least, there is no sense in letting merchants be knocked out by fright. New confidences, a fresh outlook, and be ter profits can be made possible for retailers through close cooperations with their local wholesalers. I found this to be true a short time ago. A striking illustration forced the truth home to me.

A case of scattered buying

IN a small town outside of Cleveland, I called on a customer who seemed to be slipping badly. He had stopped discounting his bills months before, and his credit situation had become acute. Twenty-five years ago I had helped this man go into business. I helped him choose a site and we sold him his first bill of goods. Because of this, I felt a sort of responsibility for his present plight, even though he had been doing well for many years.

He was sadly overstocked. He had been buying from too many sources. This invariably leads to larger and larger stocks, in my experience. The tendency to try to buy bargains all the time is seldom successful. It wasn't with this man. What worried him most, however, was the chain store down the street.

It was a branch of a great dry goods chain. I suspected that he did not know a lot about this store.

"Have you ever been in the store to see just what it is like?" I asked him. He admitted that he had not. I suggested that he get his hat and come with me to get a good idea of the rival set-up. Finally, he went with me reluctantly. We chatted with the manager for a few minutes after introducing ourselves and both of us were a little surprised that he was so friendly. He seemed proud of his store. We had a fine chance to observe his stock. After a pleasant visit, we went back to the customer's store.

A modernized country store

"NOW take another look at your own stock," I told him. "All that fellow has down there is an old-fashioned country general store in modern dress. Your stock has four times the value and three times the variety. When it comes to the style element, he can't be compared with you at all. For location you are about equal. Where he has one good friend in the community you have 16. When you want to make an innovation you do it. He has to ask headquarters. You ought to get a lot more fun out of your job than he does out of his because you are your own boss.

"On the other hand, he has his stock in more liquid condition than you have. Nothing he has is six months old. He has a hundred dollars' worth of men's work shirts, and you have about three hundred. He manages to keep his price leaders looking like fresh, new merchandise at bargain prices. Your mark-downs look suspiciously like something nobody wanted. His store is brighter, fresher-looking than yours. Part of this is paint, part of it is in the lighting he had.

"Let's get together and give him a real run for his money. It seems a shame to let that fellow, nice as he seems, walk away with all the cream." He seemed to agree that something ought to be done, and was willing to take suggestions.

"First," I continued, "let's arrange a clearance sale and get the decks cleared for a real knock-down, drag-out battle. Then we will go over every item you have and figure just how many you should have in stock to be adequately prepared, but still in a position to get rapid turnover. Instead of trying to get you to buy too much of anything, I am going to see that you do no such a thing. Then we will see that the store gets a nice new dress in which to begin the new regime. For a very small outlay we can have this store looking like the most prosperous in the community, and that is a very worth-while impression to make."

Well, we brightened up his establish-

NO MORE GOSSIPING

on the company's time





22 Telephone Typewriters now keep Studebaker's assembly line constantly in operation, resulting in a 100% increase in production.

HOW THE TELEPHONE TYPEWRITER KEEPS STUDEBAKER'S ASSEMBLERS WORKING ALWAYS AT TOP SPEED

In automobile production it is vitally essential that the right parts flow into the assembly line at the right moment. Otherwise costly periods of idleness on the part of the assemblers occur.

Formerly The Studebaker Corporation maintained contact between the assembly line and the body, motor, axle, wheel and other departments by means of messengers. But, as the plant covers half a dozen city blocks, this method was slow and productive of delays.

Now a battery of 22 Telephone Typewriters maintains this contact, with the consequence that all parts reach the assembly line at the proper moment. Under the old system the company carried many parts in stock; now it carries little stock except that on the conveyors in process.

Teletype... the Telephone Typewriter ...sends *typewritten* instructions by wire. Depressing a key on the sending machine causes the receiving machine to print that letter ... instantly! As the sender sees what is being printed by the receiving machine, errors in transmission are virtually impossible.

By means of this remarkable device a typist in your office can send typewritten instructions to any part of your factory, or to far-removed branches, warehouses or factories, at the rate of 60 words per minute. Machines can be used in either direction, making it possible to send a message and receive a reply immediately.

A distinct advantage of Teletype is that it provides a typewritten record for filing at both ends. Thus it combines the speed and convenience of the telephone with the authority and permanency of the written word.

Telephone Typewriter service is not expensive and will pay for itself repeatedly by eliminating errors, doing away with messengers and speeding up production. Mail the handy coupon for further details.

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Brooklyn Union Gas Company, Brooklyn
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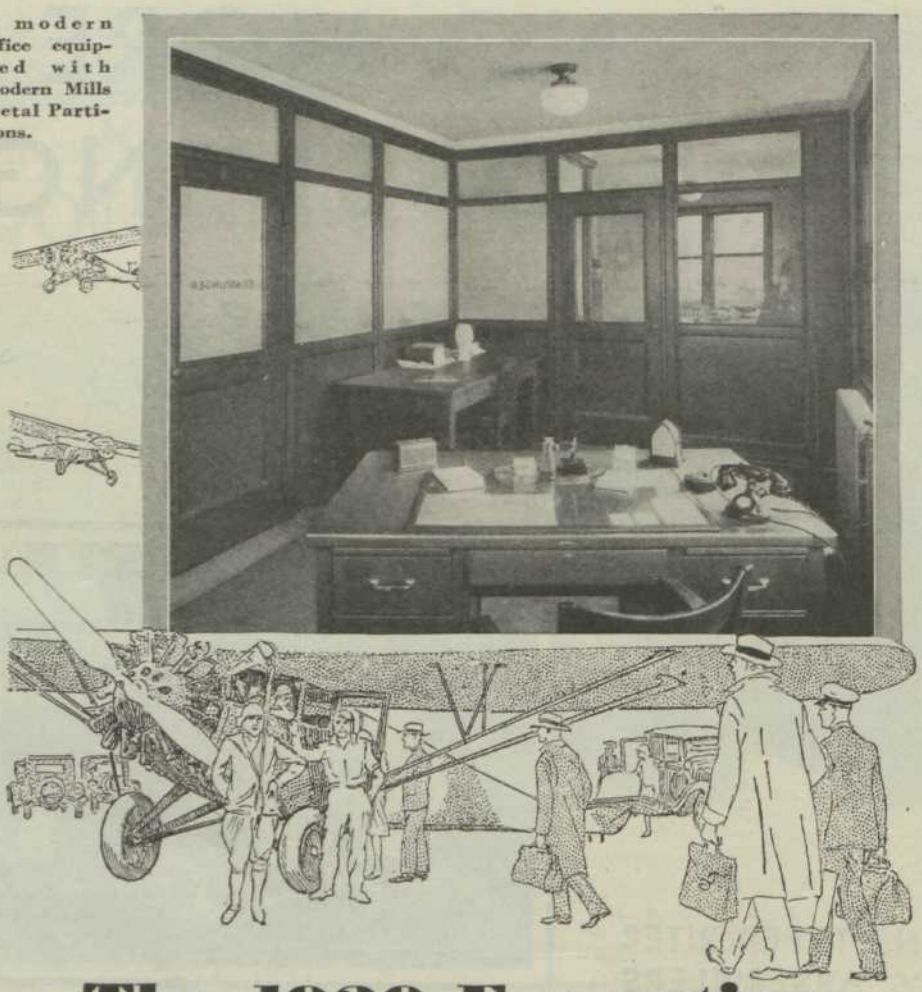
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A modern office equipped with modern Mills Metal Partitions.



The 1929 Executive
Thinks in Terms of Repartitioning

Air travel is accepted as a definite business aid because it saves time. The Mills Metal idea of interchangeable partitions was accepted because it forever removes the bugaboo of repartitioning.

Made in standard interchangeable sections, any kind of office or departmental layout is possible and easily, quickly, without fuss, bother or inconvenience the same sections can be re-arranged as desired. That's repartitioning in 1929.

Pioneers in the business we have made the Mills Metal New Executive Office Partition an epochal partition development. Insulated panels for sound deadening. Partition base adheres tightly to the floors so that there is no possibility of dirt, dust, air or sound coming through underneath partition base.

Point by point you can compare this Mills Metal New Executive Office Partition with any other partition and each and every comparison all the more emphasizes the fact that never was so much offered in a partition of any kind.

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A Mills Metal Partition for Every Purpose

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REPRESENTATIVES IN ALL PRINCIPAL CITIES

MILLS MILLS METAL **METAL**

INTERCHANGEABLE PARTITIONS

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ment and ran a first-class bargain sale to clean out the out-of-style merchandise. Now he buys from 15 sources instead of 50 as formerly. He buys what he needs as he needs it. He discounts his bills, he has more cash on hand than he ever had, and is a hard-hitting, successful merchant where only yesterday he was on the verge of being a beaten man. Inside of 60 days these few changes had done wonders for his business. We back him up regularly with advertising plans, selling helps and specials. He uses them as he does those of other live wholesalers with whom he deals. He is a happy man, glad to be alive.

In a town about 25 miles away, I found another somewhat similar case. Here the merchant had accumulated about $3,500 worth of a nationally advertised line of knit underwear. He was actually crowded up with conflicting merchandise, from attempting to buy direct from manufacturers and from too many sources.

Cases without number could be cited but would add nothing to the underlying truth. Chain stores have really created a great chance for whosesalers to get out and prove their worth. They stand, figuratively, on a high hill and are in a position to see which way the wind is blowing down in the valley below. The individual retailers cannot see so well. The chain stores are raising a wind in some sections, but wholesalers are perfectly capable of setting up counter currents which are good trade winds in their way, too.

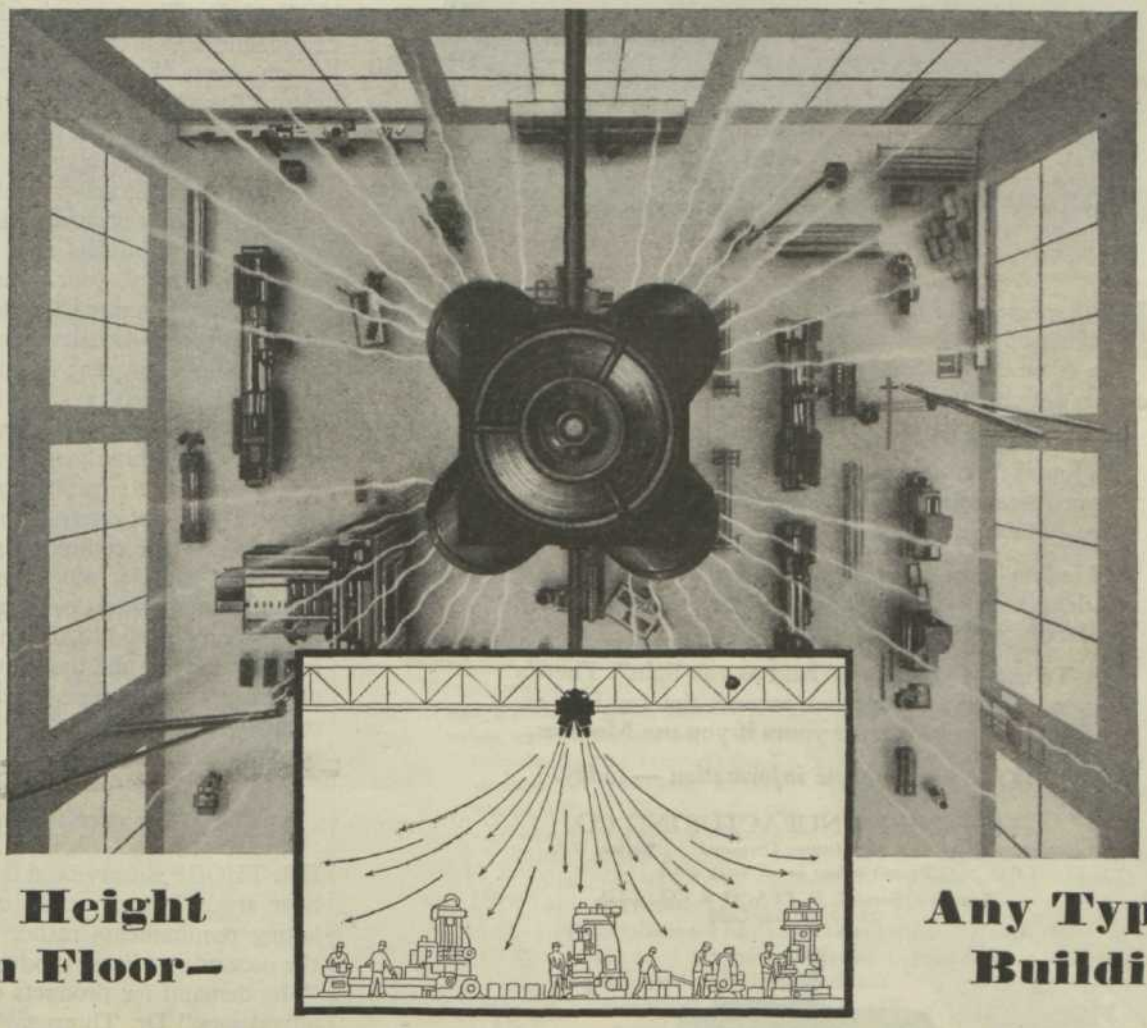
The ones to bless them finally will be the very manufacturers who are now making the wholesalers positions more difficult, by entering into competition with them on their own products, while depending upon the wholesaler for the distribution of the major portion of their production.

The Modern Touch

THE brick and tile manufacturing industry may be as old as Egypt, but the modern note penetrates even that ancient business.

Not so long ago heavy wheelbarrows that rattled along on steel-shod tires between kiln and box car were the rule. But now the wear and tear on both the barrows and their chauffeurs have been lessened and noise, from this source at least, practically eliminated at one of the thriving brick plants at Brazil, Indiana. At this plant the bricks travel along in plutocratic fashion on barrows equipped with solid rubber tires and roller bearings.—P. H. H.

WING FEATHERWEIGHT



Any Height from Floor—

Any Type of Building

FOR best results a heating system must fit a building—must be *engineered* into it. Wing Featherweight Unit Heaters are designed expressly for this purpose. They permit the greatest possible range of adaptability.

1 A variety of standard discharges are used, specially designed to distribute the warmed air from any height and over any shaped area. With the proper discharge Wing Units can be installed as high as 45′ from the floor and can be adapted with equal efficiency to low ceilinged rooms.

2 Thorough diffusion of the warm air currents by these discharges is insured by the use of the highly efficient Wing Scruplex propeller-type fan to supply large volumes of heated air at high enough velocity for it to penetrate and spread through the cooler air beneath.

3 Wing Units are located directly over the area to be heated and direct their currents downward in all directions.

4 They are light enough to be installed just where they will be most effective.

When you use Wing Units you simplify your installation problems and insure the best results with a minimum number of heaters.

For a detailed description of Wing Featherweight Unit Heaters with illustrations and diagrams of their various installations, write for our new catalog.

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L. J. WING MFG. CO. . . . 55 Seventh Avenue . . . New York City, N. Y.

UNIT HEATERS

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Photo Courtesy National Lamp Works

THE spectacular emphasizes the common. The illumination of night base ball is spectacular in application, but it uses a common lighting principle—the directing of light *down* over a definite area.

Modern *heating* utilizes this *lighting* principle. Industry has found that maximum comfort and economy, and minimum installation, maintenance and operating costs are the certain results of properly directed heat.

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Modine Unit Heater Model 701 — 130 lbs.

— replaces over 2 tons of pipe coil radiation.

Modine
Unit HEATER
A MODINE Product
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Mergers and Costs

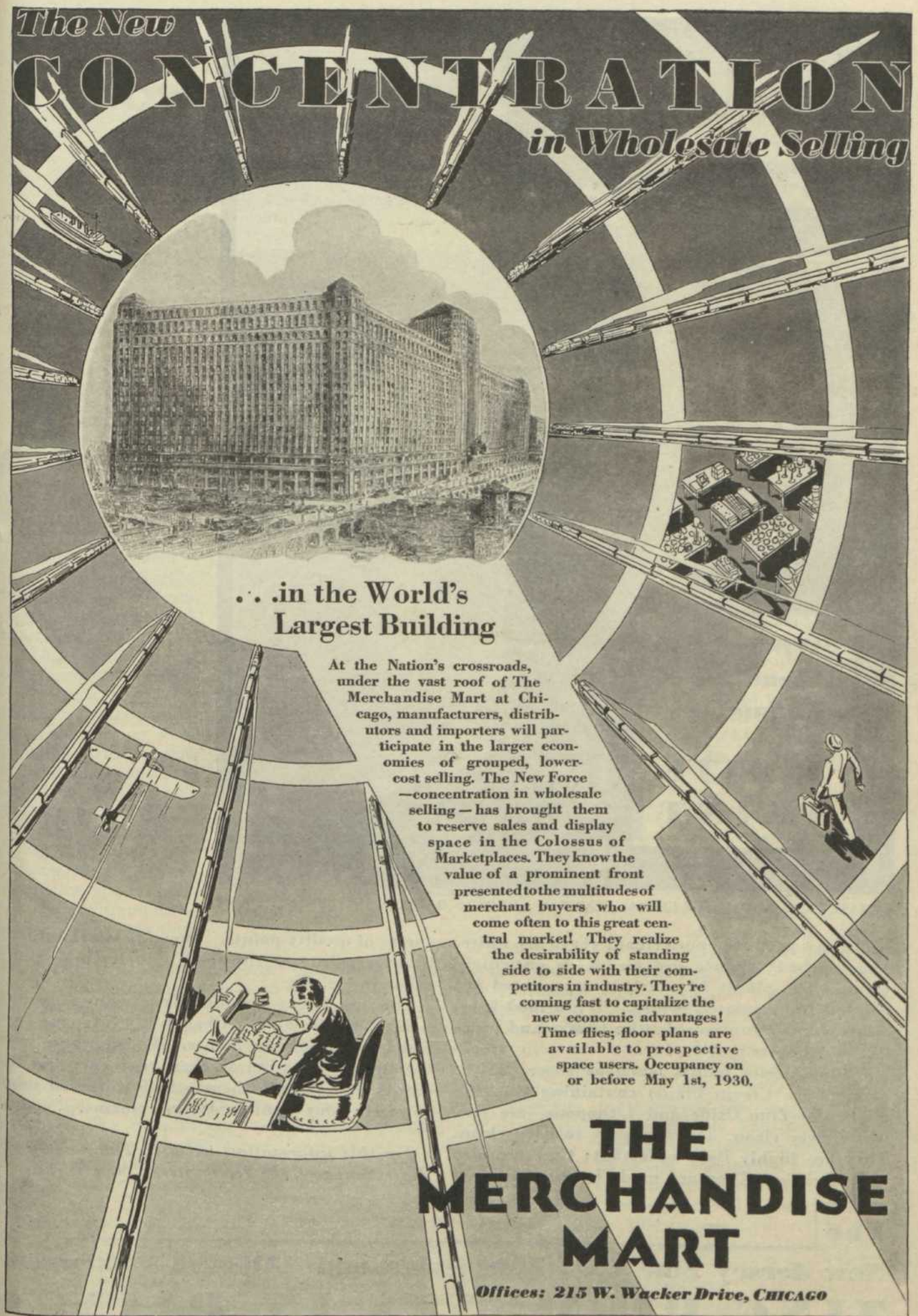
IT HAS been clear enough that as business units become larger through mergers or consolidations, the problems of management increase to a corresponding scale. But the popular belief that net economies invariably result, from large-scale management is not borne out by the investigations of Dr. Willard L. Thorp of the Bureau of Economic Research. In an address to the members of the American Management Association, Dr. Thorp said, "records indicate that, as often as not, the larger concern operates at higher unit cost than the small one."

A similar conclusion is reached independently by the National Industrial Conference Board, which finds that "a popular impression as to the financial success of consolidations generally is proved illusory in that the study of the business history of a large number of consolidations over a period of from ten to twenty-three years prior to the war showed that, by and large, these mergers did not prove exceptionally profitable. Their combined record was found not to differ much from that of independent business concerns, in that, while many made high profits, many failed absolutely and the majority failed of conspicuous success, indicating that consolidation in itself is no substitute for efficient management."

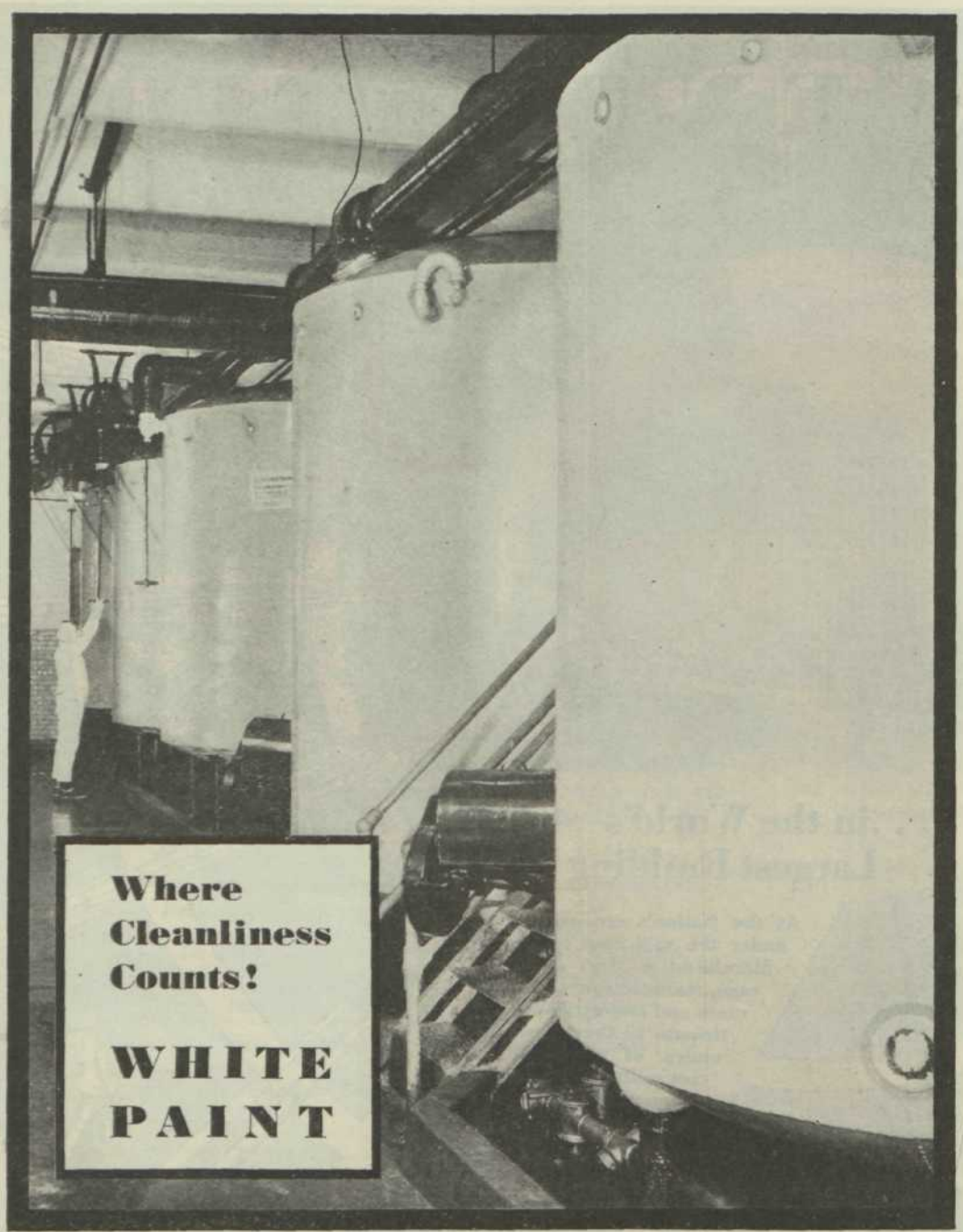
Marketing often a motive

DR. THORP is convinced that mergers have arisen in many cases out of marketing requirements rather than from the necessity of lower production costs. "The demand for products of national advertisers," Dr. Thorp said, "has led small companies to combine that they may display their wares. Furthermore, the difficulty which the law places in the way of companies which endeavor to agree upon prices, or output or markets, may be overcome if the several companies combine into one."

The statistics of the combination movement for the years 1919 to the present, Dr. Thorp said, point to two conclusions: "In the first place, there is a pronounced upward trend—the movement is proceeding at an accelerating pace. In the second place, there is a surprisingly close parallelism between these mergers and business conditions. The consolidation movement appears to be most active in periods of prosperity and high money rates, and to show marked decline during depression."



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The raw product—pure cream—is richly white. The finished product—ice cream—is enticingly white. The plants in which it is prepared are painted immaculately white. "Pure food from clean plants" summarizes the theory and practice of Abbotts Dairies, Inc.

White interior paints (such as those used in Abbotts Ice Cream Plant) containing the zinc pigments—Zinc Oxide and Lithopone—are very white, very clean, and very easy to keep clean. They are highly light reflectant; they are also very durable. They are made by all manufacturers of quality paints. They are the dominant interior paints in the food industry and many other industries.

The New Jersey Zinc Company's zinc pigments —Zinc Oxide and "Albalith" Lithopone—are widely used in these paints. We believe we have detailed information on these pigments and the paints that contain them, which will be of value to you in your plant painting problems.

For this information write to The New Jersey Zinc Company, 160 Front Street, New York City.

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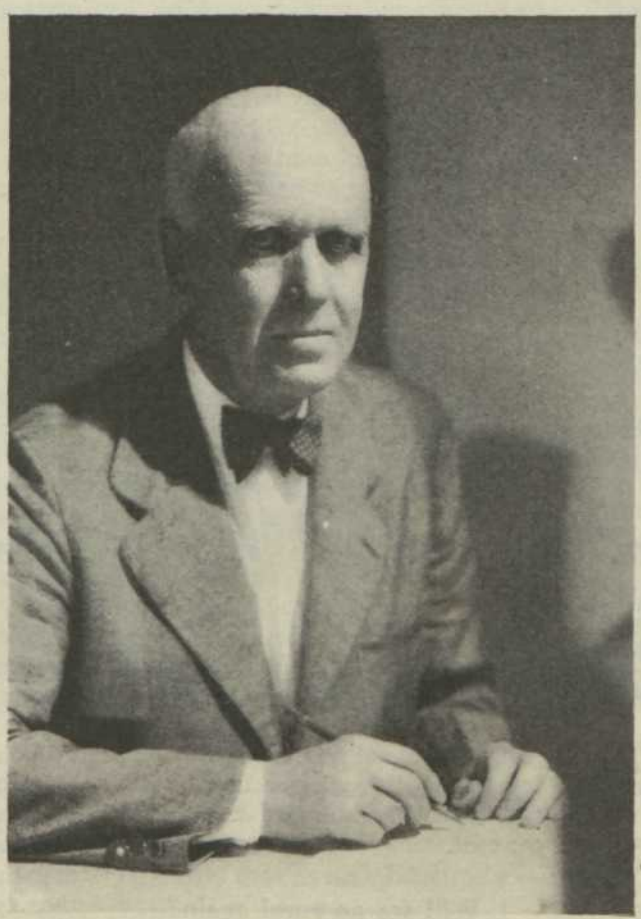
ZINC PIGMENTS IN PAINTS

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How the Nation Calls the Roll

By WILLIAM M. STEWART

Director of the Bureau of Census, United States Department of Commerce



UNDERWOOD & UNDERWOOD

"I believe this country's advancement is due to knowledge of population and resources"

ABOUT 3,000 years ago King David set out to count the people of Israel and Judah. The task took nine months and 20 days and the returns showed 1,300,000 "valiant men that drew the sword."

Next year the United States will take its fourteenth decennial census and the Census Bureau will be required in one month to enumerate approximately 120,000,000 people in addition to obtaining rather extensive information on some 6,250,000 farms, 14,000 mines and quarries and more than 100,000 irrigation and drainage projects.

This is a gigantic undertaking. Thousands upon thousands of field workers will be active in every nook and corner of this vast country. The information they collect will converge upon the Census Bureau in Washington in an avalanche of data on educational, social and economic conditions, including distribution and unemployment.

The individual and personal sheets filled out by the enumerators will be superseded by impersonal manilla cards hole-punched and packed with information regarding every person, man, woman and child in the United States—everything except the name. That alone is unimportant for the statistics of the Census Bureau.

These cards will be put into machines which will sort, count and tabulate them faster than the eye can follow.

Thus the Government will learn what it needs to know about the people who compose the population of this country.

At the beginning of our own national existence, a census was taken equal in magnitude to that which King David took. The task was assigned to United States marshals. They were allowed 13 months for the enumeration. The results showed a total population of slightly less than 4,000,000.

How the census started

THE CENSUS was established as a decennial event by the Constitution and it is the only current statistical inquiry resting on such fundamental legal authority. Prior to 1790 little had been done in any modern country toward establishing a regular periodic count of population.

Since then the nations of the world have been developing methods and machinery making possible a speedy count of the people and the accumulation of other important data. The method used by this country is as painless as possible to the individual. Only questions absolutely necessary for a check up on various conditions are asked and no one is obliged to curtail his or her activities while the census is being taken.

There will be no scenes as were witnessed in Turkey when that country took its first census in October, 1927. The Turks imprisoned the entire population in their houses the day of the census. No one was permitted on the streets. No street cars nor trains were run. All business was suspended. Armed guards were on patrol to arrest anyone found at large. In Constantinople, it was not until the completion of the census at 10:15 p. m. that signal guns sounded the end of the counting and people emerged from their homes.

Our estimates show the population of the United States increasing at the rate of approximately 1,400,000 persons a year, or approximately one person every 23 seconds. This increase is the annual excess of births over deaths, and the excess of immigration over emigration. By 1930 the population will be more than 30 times as great as it was in 1790 and nearly twice what it was in 1890—only 40 years ago.

No other nation in history has had

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BONDERIZED fenders, hoods, gas tanks, trunks, refrigerators and metal furniture hold the enamel and therefore cannot rust.

Not only does Bonderizing give this added quality—but it actually reduces the cost of the final finish.

Then why tolerate rust?

Bonderite is a chemical primer, quick in application, efficient and low in cost. It is a Parker Product for use only under paint, enamel or lacquer—*it is not a substitute for Parkerizing.*

Paints are intended to beautify and protect—Bonderite primer gives permanency to these outer coatings.

Any manufacturer can equip to apply Bonderite by installing a processing tank of proper size to handle his production. It may be used by the large or small producer with equally good results and comparative economy.

PARKER RUST-PROOF COMPANY
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Send for your copy of "Bonderite and Enamel" and get the complete story



such a rapid increase in population. Furthermore, in no other nation has the increase in population been accompanied by such an improvement in the comfort and well-being of the people.

As a statistician, I believe that this advancement has been due in no small degree to the definite knowledge we have of our population, our resources, our facilities for transportation, and our population as expressed in current statistics. It is the duty of the Bureau of Census to compile and publish much of this information so that every individual and every industrial and commercial enterprise, big or little, may have and use it.

In 1790 the 4,000,000 people of the United States occupied a territory of 868,000 square miles or 4.5 persons for each square mile. The present area of the continental United States is 2,974,000 square miles and the average population per square mile in 1930 will be more than 40 or nearly 10 times the early average.

At the time of the first census only six cities in the United States had more than 8,000 inhabitants. The population of these cities formed a little more than three per cent of the total population of the country. In 1920 there were 924 such cities and their population was nearly 44 per cent of the total.

Including the population of smaller cities down to those with 2,500 inhabitants, the urban population of the United States in 1920 formed a little more than half of the total and the rural a little less than half, while the farm population taken alone formed less than 30 per cent.

Will we go rural again?

IT appears, therefore, that we are becoming more and more a nation of cities. But certain strong factors are operating against this tendency. One of the most potent of these is the automobile. You may be obliged to work in a city, but if you own a car you can readily live out in the more spacious regions of hollyhocks, roses and vegetable gardens. There are some who phophesy that by reason of this growth of suburban residential areas, the 1930 census will not show the usual increase in the proportion of urban population.

In its first census the United States took only the name of the head of the family and the number of persons in the family, distributed into four or five groups or classes. The family of John Hancock, for example, was reported as comprising two white males more than 16 years of age, three white females and seven other free persons not white, who were presumably his negro servants.

Beginning with the census of 1850 the name of each individual in the family was recorded. Thus we find that the family of Abraham Lincoln, enumerated at Springfield, Ill., in 1860, included Mr. Lincoln; his wife, Mary; his three sons, Robert T., Willie W. and Thomas; a servant, and a boy 14 named Philip Dinkell.

In that census each individual was asked to give the value of his personal and real property. Lincoln returned $12,000 for his personal property and $5,000 for his real estate.

President Buchanan's family

THE same census noted President James Buchanan returning a schedule in the District of Columbia. His household included himself, his niece, Harriet Lane, a secretary, and 11 employes and servants, all of whom were foreign born except one.

All of the original census records, except those lost or destroyed by accident, are on file at the Census Bureau, starting with 1790.

These records are consulted annually by thousands of persons seeking information to be used for genealogical purposes, to settle estates, to establish ages and for other purposes.

When the system of individual enumeration was adopted in 1850, a number of new classifications were added, including illiteracy, school attendance, occupation, the exact age of each person, and his place of birth. In 1870 a question of the nativity of the parents of each person was added so that from then on the census reports show separately not only those persons who are foreign born, but also those who are of foreign parentage.

In later censuses, the foreign born have been classified not only by country of birth but also according to year of immigration to the United States, whether naturalized or alien and whether or not they speak English.

The numerous classifications and correlations required in a modern census would be simply out of the question without the use of tabulation machinery. In fact, I believe that the differences in the method of handling the tabulation of a census that have come with the introduction and development of machine processes are quite as great as those in any of our large industries.

The clerk laboriously counting items on the schedules and adding columns of figures may be compared with the old-time shoe-maker, turning out completed shoes at the rate of three pairs a week.

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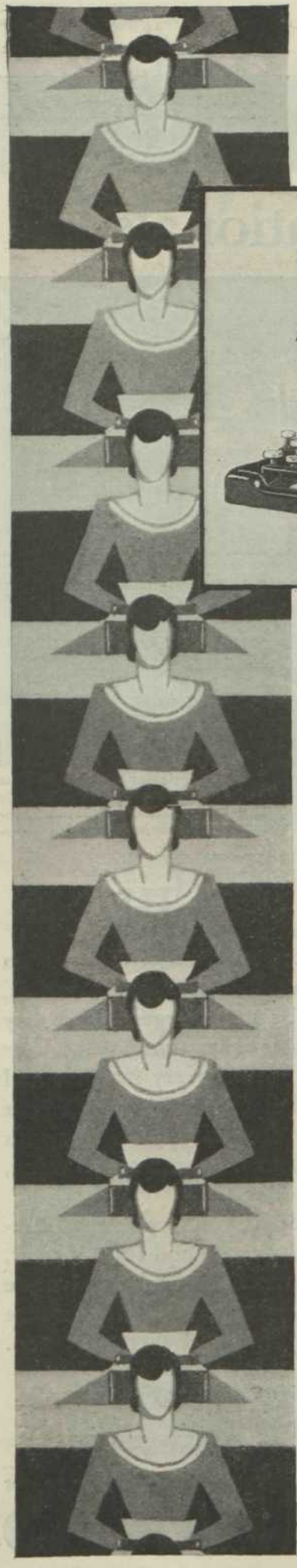
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TYPEWRITERS

while the present-day organization, equipped with the various kinds of tabulating and computing machines, may be compared with the modern shoe factory, turning out 25 or 30 pairs of shoes per week for each employe.

The first task in tabulating the population census is to transfer the information reported for each person to a punched card on which the position of the holes indicates the characteristics reported. The 120,000,000 cards required for this purpose, stacked on racks seven feet high, will occupy more than a quarter of an acre of floor space.

After the cards are punched they are taken to the electric assorting machines and sorted by sex, color and nativity. Then they are run through the tabulating machines, which count numerous other items, such as age, place of birth, illiteracy or occupation. These machines will count 60 items or combinations at the same time and print the totals.

Shows towns of all sizes

THE census must show the population of every political subdivision in the United States. Consider what that means! There are in the country about 3,100 counties; there are about 17,000 incorporated cities, boroughs and villages, ranging in size from the village of Dering Harbor, N. Y., which at the last census boasted three inhabitants, to the great metropolis of New York, which has a population of more than 6,000,000.

There also are about 45,000 townships or similar political units. At the coming census we must ascertain the population of each of these political subdivisions—70,000 or more— and before we can do that we must have maps showing the location and boundaries of all these areas.

Before we can take the census, the entire area of the United States must be laid off into enumeration districts, each large enough but not too large to be canvassed by a single enumerator. There will be about 100,000 districts in all. In the cities these districts will include about 1,800 persons. In the rural areas, where the enumerator must cover more territory, the population will be smaller; but the rural enumerator has to get data for the farms as well as the people.

This army of 100,000 enumerators must be selected, instructed, sworn into office and be ready to work on the census day. The oath of office requires each one to make a correct enumeration and to preserve the secrecy of the information he obtains. The law imposes severe penalties for violating this oath. No one need have any hesitancy in answering the enumerator's questions frankly.

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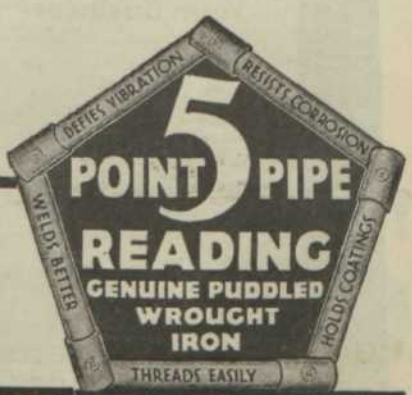
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Food Combines and the H. C. L.

COMMONPLACE as mergers have become, the $500,000,000 food products consolidation, Standard Brands, Inc., engineered by the Morgan firm, was front-page news throughout the country.

Apart from the backwash of editorial comment, the conclusion attributed to Senator Walsh of Montana seems to reflect the most lively popular interest, for it touches a vital concern of the consumer.

"That such mergers signify a further addition to the cost of living," the Senator is reported to have said, "scarcely admits of doubt."

But is judgment so easy and its pronouncement so final? The results of the National Industrial Conference Board's recent study of consolidations invites conclusion in another direction. For the 60 lines of manufacturing considered by the Board, the general upward trend of prices from 1900 to 1925, inclusive, was much less pronounced in the 26 lines that were dominated by mergers —28.8 per cent as compared with a rise of 110.6 per cent in the same period for the 21 lines of manufacturing that were not so affected.

In the other 13 lines, in which consolidations of limited scope were made, prices in the last quarter century rose, on the average, 70.7 per cent.

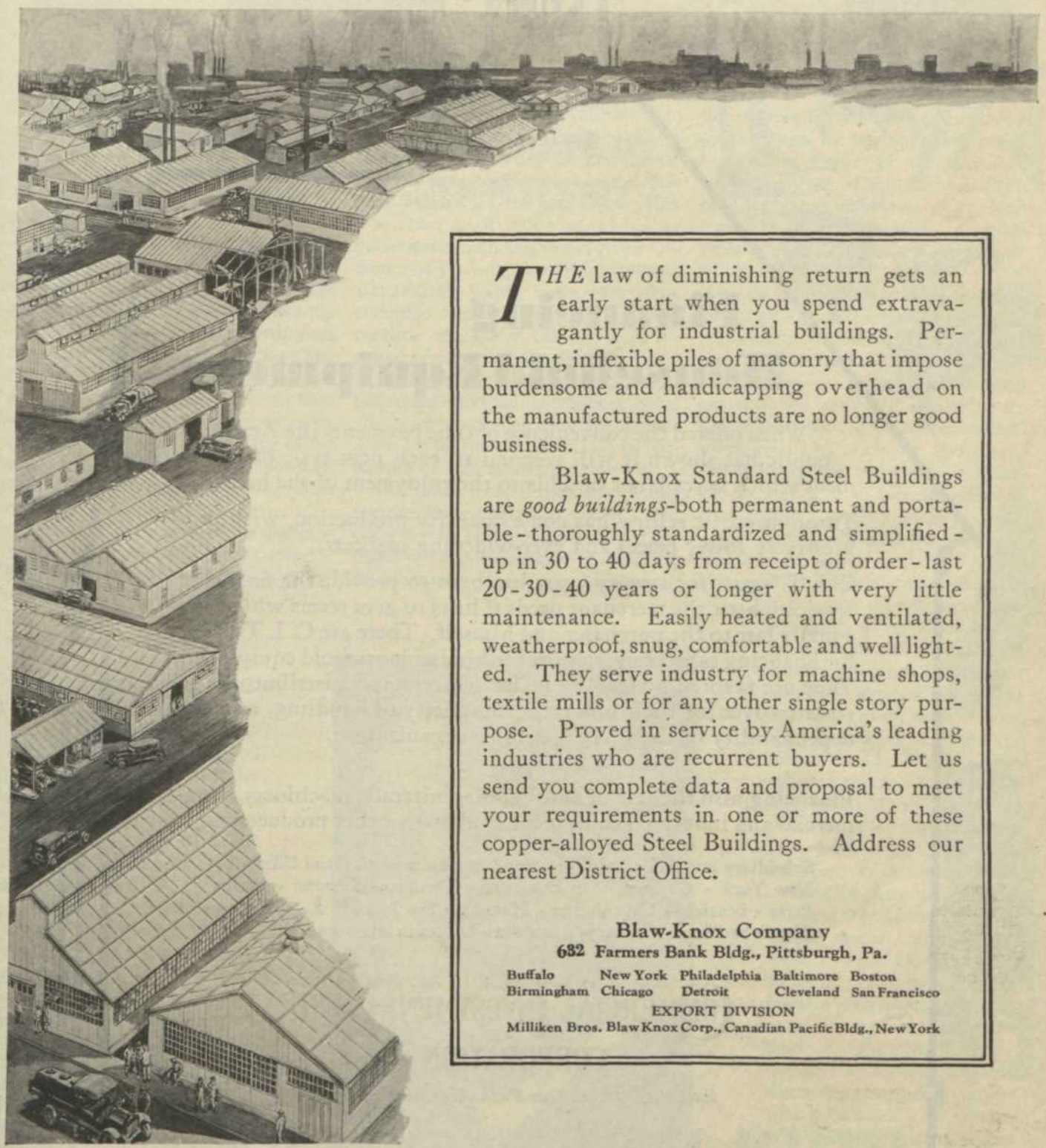
A minimum price advance

ON REDUCING prices to dollars of equal purchasing power on a 1913 base, the disparity in price advance for the three groups is not so striking, the Board concedes, yet in the group where consolidations were the rule, the price advance was approximately only one-half of the increase shown for the industries operating independently.

It is the Board's conclusion that "the stabilizing influence of consolidations upon prices is definitely established," but this action was found to be more marked in the effect upon short time or seasonal fluctuations. But the indications are, the Board adds, that if the assembly of data had been continued through the period since 1925, so that account could have been taken of the exceptional price stability during recent years, a similar effect of consolidations upon year-to-year fluctuations would have been statistically demonstrable.

—R. C. W.

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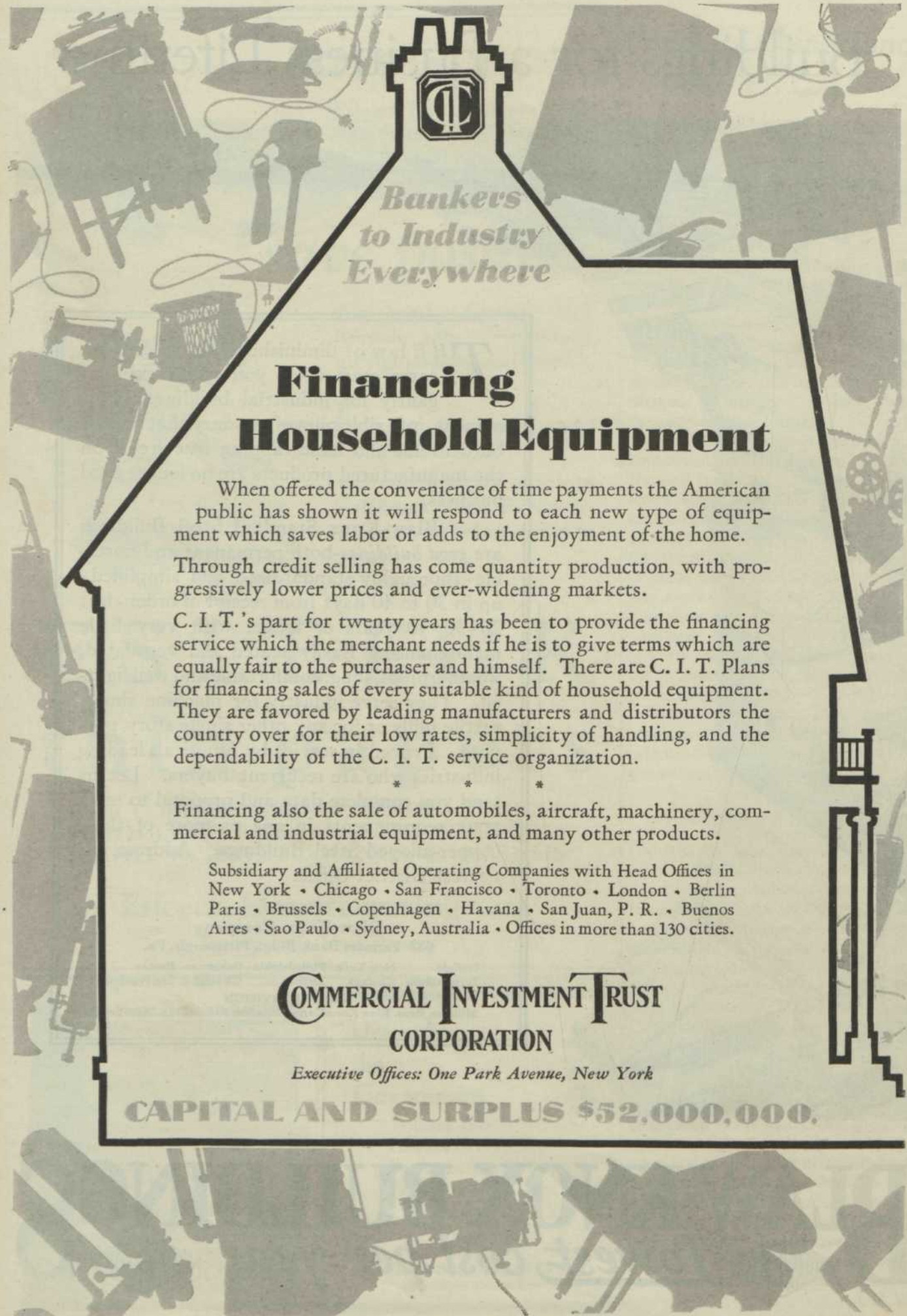
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What the World of Finance Talks Of

By MERRYLE STANLEY RUKEYSER

A FAVORED sport along the lane where money grows is to speculate as to when the ultimate peak of security prices will be reached at the Stock Exchange.

For four years, various economists, genuine and pseudo, have solemnly warned that stock prices were inflated and had to come down. But apparently stock prices have boldly ignored such commands, and have behaved according to their own laws. Since 1922, the net trend of average stock prices has been spectacularly upward, and commentators, impressed with the analogy of the world of physics, have been obsessed with the notion that what goes up must come down.

Such reasoning, however, is delusive. It ignores the natural law of growth. There is no necessity for men to shrink again to the size of children or for giant trees to revert to acorns—at least during reasonably short periods of time. "Ultimately" is far off, and perhaps the complicated economic institutions of today will, generations hence, be succeeded by a simpler set of tools for doing the day's work. But from a practical business standpoint, the observer need not look ahead much further than five to 25 years.

Outstanding corporations in favored, growing industries tend each year to set new high records, and it is not entirely unreasonable for security buyers to discount such a progression of steady advances in earning power. On occasion, this discounting process becomes frenzied and unduly exaggerated but ordinarily the stock market itself corrects its own blunders.

The readjustment is glibly termed a healthy reaction but the amateurs who suffer most from such recurrent setbacks are not inclined to praise the financial machinery for its automatic capacity for restoring an equilibrium.

Nothing could be more misleading to the lay speculator or investor than to observe a line charting the price movement of stocks as reported in the ordinary indexes for the last seven years. The chart itself unless supported by voluminous footnotes, would give a fundamentally wrong impression because statisticians, boiling down their data, eliminate many of the day to day fluctuations which fray the nerves of the actual operators in the Street.

To the overextended trader, it makes little difference whether drastic setbacks are major or only intermediate in character, for the margin clerk takes no cognizance of such academic subtleties.

The ticker itself perpetually reflects the prevailing market psychology, and every *average* trader is likely to feel impelled to sell out during nerve wracking reactions and to buy during highly emotional rallies. Such human frailties create opportunities for the analytical investors, acting either for themselves or wealthy clients or institutions. Such canny operators make it a policy to keep a reserve of buying power to enable them to step in when the crowds are selling.

To do this, they must have the independence of mind to sell out stocks when public clamor is bidding them far above their intrinsic worth.

There are mechanical aids to such efforts at self-control. It is possible for operators to place "good until cancelled" selling orders at prices far above prevailing levels. And conversely, it is feasible to give g. t. c. buying orders at prices below prevailing levels.

Such buying orders are frequently executed in periods of temporary fright, when easily moved marginal speculators seek to free themselves of commitments. At such moments of mass liquidation, the informed spectator reminds himself that some individuals or institutions are buying every share of stock that has been sold. When the market breaks, the headlines call attention to a deluge of selling. It would be accurate to point out at the same time that there has been gluttonous buying of stocks on a scale down.

Since the midwinter break in 1926 the Street has witnessed a seesaw market, with the net trend upward. However, after sustained rallies, there have frequently been severe intermediate declines. Prolonged rallies tend to weaken the quality of buying, transferring stocks from discerning, analytical buyers, who purchase shares outright or on an extremely conservative basis, to the hands of the inexpert laymen, who buy on tips or hunches on rather slender margins.

The truth is that the uninformed speculator buys stocks, irrespective of the earning power or assets of corporations, in the expectation that he will be able to sell his holdings at a profit



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A NOTEWORTHY banking achievement is that of S. W. Straus, who, in a little more than a year, has opened two national banks bearing his name. One is in New York, the other in Chicago. Unique in this development is the fact that the investment side was developed first

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to some one still more reckless. As long as the ticker records rising prices, collective hopes to get out at a profit persist. But when a setback occurs, large groups who have been speculating in *prices* not *values*, are seized with an impulse to sell out at the same time.

When large groups are more eager to sell than to buy, prices recede. Experience has demonstrated that in times of temporary public pessimism the good stocks recede with the bad, though usually not at the same rate.

The rise of investment trusts, which are becoming increasingly important factors at the market place, should ultimately contribute to stabilized price movements, because, if they are worth their salt, investment trust managers will invest more scientifically than individual plungers.

Moreover, the well managed investing institutions tend to specialize in the more meritorious stocks, and their cumulative influence is to decrease the floating supply of the premier stocks—the blue chips of Wall Street.

Thus far, it has been prudent to specialize in quality stocks, but eventually there may be so much competition among buyers that the edge will be taken off. Security prices reflect popularity as well as intrinsic merit. Thus gilt-edged bonds which are legal for savings banks and trustees, are boosted in price by the institutional demand.

The individual investor who is not subject to legal restrictions can ordinarily get more for his investable funds by avoiding competition with savings banks and selecting instead high grade non-legal issues.

◆

SINCE 1927 the stock market has become increasingly selective. The big push has been in shares of preeminent companies in industries showing a forward trend. Leadership itself fluctuates with changing public investment tastes. Last year motor stocks were in the vanguard and railroad shares were unwanted. In recent weeks, the opposite has been the case. Ever since Herbert Hoover's election dissipated the political threat of public ownership of public utilities, the Street has shown a marked tendency to revalue upward shares of power, light and allied companies. The O'Fallon decision which tended to strengthen the property rights of railroad owners, generated further enthusiasm for utility shares. By analogy traders held that the O'Fallon decision strengthened the effect of similar public utility decisions, such as those in the Southwestern Bell Telephone and the Indianapolis Water Com-

How *Big* Is a Town?

RANKING towns and cities by their human population is not the best way to compare them. When manual toil created most wealth, the man power of a community determined how much it could produce. But in an age of electrical power, usable anywhere any time, available man power no longer sets limits upon the wealth and buying power of a town or village. The notion that the choicest markets are to be found in dense swarms of humanity comes from mental habits inherited from the older day.

The Middle West Utilities System provides electric power to four thousand small and medium-sized communities with a population of 6,000,000. A population of that size has about 2,400,000 people gainfully employed. The power distributed to these communities is equivalent to the working capacity of over 11,000,000 able-bodied men working eight hours a day the year round. No mere "counting of noses" can measure the productive capacity of these towns.

Electric power used in the small communities goes directly into net gains of productive ability and better living. The power used in great cities is largely absorbed in moving people to and from their jobs. The larger the city the more power must be diverted to traction, elevators and other means of combating the handicaps of congestion. In one great city a 15 per cent gain in population caused a 50 per cent increase in car-riding.

In the smaller community no such pyramiding of power use is required. It follows that electric power put to work in a small town profits its people more than the same amount of electric energy in a great metropolis. Electric power brings to the small town a greater per-capita productive ability than it can possibly bring to the big city.

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Middle West Utilities Company

The strategic position of the small town in American industrial development is fully discussed in the booklet, "America's New Frontier," which the Middle West Utilities Company (72 West Adams Street, Chicago, Illinois) will send upon request.



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pany cases. The energizing element in these decisions consisted primarily of the rule that in valuing such properties commissions must take into consideration reproduction costs.

♦

A FEW specific facts will show the futility of generalizing about the stock market. Between May 27 and July 26, the average of the Standard Statistics Company revealed an advance of 36 points in average stock prices. That index gives the impression of an unqualified bull movement, yet, if a more detailed study of price behavior is made, marked irregularity is evident during the weeks under consideration.

One statistician has shown that 619 individual shares were traded in on the floor of the New York Stock Exchange both May 27 and July 23. Of these only 150 stocks advanced to new price peaks by the later date. Of the remainder, 178 slumped to levels lower than those prevailing May 27. Furthermore, 277 stocks, though advancing, failed to attain new high records. About 14 vacillated, getting nowhere.

This analysis supports the view that the market has been highly selective in character. It has been perfectly feasible, as many dabblers have learned, to play the market during the periods of record-breaking average prices without even breaking even. Unprecedentedly high brokerage commission charges, high interest rates on debit balances, and state and federal transfer taxes constitute the overhead cost of speculation which eats into nominal profits.

In the late spring and early summer public utilities, rails, electrical equipment companies, steel and chemical shares were in especial vogue. On the other hand, motor, sugar, textile, leather, coal, and oil were inclined to drift toward lower levels. The lack of uniformity among various groups of stocks explains why the New York Stock Exchange average, which includes all listed stocks, fails to rise or fall as sharply as the selective averages, which are overweighted with the quality stocks.

♦

AS PRESIDENT of the Sun Life Assurance Company, T. B. Macauley is a strong advocate of the philosophy of holding a diversified list of common stocks in the strongest corporations.

"Our Canadian law," he pointed out, "wisely excludes stocks of all companies that do not have a long record of dividend paying and prosperity. But we go much farther than that. We limit ourselves almost entirely to corporations that have attained outstanding financial strength, with great reserves and resources already established, that supply some product or service essential to the life of the community, and that usually are dominant in their respective spheres.

"Such corporations have their roots deep in the life of the nation they serve, and are almost part of the nation itself. If the nation grows and prospers they must grow and prosper. The operations of such corporations can hardly fail to expand, and their profits to increase, surely and steadily. This is but another way of saying that the stocks of such select and outstanding companies can hardly fail to be of greater intrinsic value five, ten or twenty years hence than they are today."

♦

AS A by-product, it is interesting to recall that most states forbid life insurance companies to invest in common stocks. Only recently, New York State lifted the ban on investments in preferred stocks. In the last six years, the doctrine of common stocks as long term investments has won wide acceptability among individual investors.

If experience demonstrates that diversified common stocks are as good as their advocates maintain, the Canadian companies will become dangerous competitors of the American companies. Insurance executives and lawmakers should give serious thought to further modernization of the American statutes in accordance with changing scientific standards of investment.

♦

ONE REASON for the prevailing confidence in outstanding companies is the fact that American business is fast becoming institutionalized. Though still subject to free competition, commerce is coming more and more to be distributed among established business institutions. Existing companies assure their continuance by investing liberally in research, which keeps them at the forefront of changing methods.

♦

IN THEIR dramatic tussle with Wall Street bulls, the Federal Reserve authorities are diverted by outside interests. For example, during the crop moving season, the Reserve officials who want to make credit dear to discourage excessive absorption of funds in speculation also desire to hold interest rates in check in order not to penalize the farmer.

Likewise, in the early fall legitimate

"Hear the News? We've lost the Detroit contract"





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FLEXLUME ELECTRIC DISPLAYS

business expansion requires some increase in the credit supply. Ordinarily, the crop moving and fall business expansion require an increase of about $300,000,000 in Federal Reserve credit.

Last year, Roy A. Young, governor of the Federal Reserve Board, openly indicated that such additional funds would be forthcoming. Stock market bulls this year staked much on the expectation that once more the Federal Reserve would regard the seasonal needs of agriculture and industry as the decisive factors until later in the year. After the turn of the year, the banking authorities will again be free to chastise the bulls if they are still unchastened.

A due regard for the requirements of foreign financial centers has also limited the Board's freedom. High rates in New York have already heaped burdens on London and continental centers, and the London money market has doubtless used its influence for punitive reasons.

♦

HIGH interest rates in New York have drawn foreign funds to that center. Accordingly, in recent months, New York has been a borrower from the rest of the world rather than a lender. Opportunities to make advantageous call loans and a disposition to buy stocks instead of bonds have radically cut down the demand for new foreign bonds, and this change has adversely affected the borrowing countries, notably Germany, Austria, and Hungary, which had adopted a policy of continuous foreign borrowing.

Furthermore, other lending countries—England, Holland, Sweden—have also experienced tighter money, and have been less disposed to make foreign loans. Switzerland and Belgium have retained relatively easy money rates, and are in position to spare moderate quantities of capital for foreign investment. France is in best position to make alien loans on a huge scale.

In assessing the effect of high interest rates in New York—due largely to the peak demand for funds to finance brokers' loans at the Stock Exchange—Benjamin M. Anderson, Jr., economist of the Chase National Bank said:

"In Europe, the result has been to create a definite financial strain. The lending countries have ceased to be ready lenders to the borrowing countries and, in some cases, have withdrawn funds previously loaned. The borrowing countries which for several years had adjusted their economic life to a large inflow of foreign funds, have found themselves suddenly pulled up short, with the necessity of changing their economic

activities so that they can pay instead of borrow.

"A borrowing country is an importing country. It brings in the proceeds of foreign loans in the form of goods primarily, and, when it is borrowing largely, it has a surplus of imports over exports. Domestic demand is strong in a borrowing country, resisting the export of domestic goods and attracting foreign goods. When a borrowing country turns to the position where it must pay back what it has borrowed, the scene shifts. It develops an excess of exports over imports. Domestic demand is weakened, no longer attracts foreign goods in the same volume and no longer resists the export of domestic goods so effectively.

"When a transition of this sort comes gradually, it is easily accomplished and relatively painless. When it must be suddenly made, however, it is almost inevitable that there should be a period of depression during which labor and resources are released from producing goods for the domestic markets to producing goods for export, and during which prices are reduced so that the country may more effectively compete in the export trade."

♦

PERHAPS when the ideal city in the almost perfect state is created, it will be a tax-free community. The principality of Monaco is now the only country which abstains from levying imposts on its nationals. Instead it gets its revenues from the Casino at Monte Carlo, in which incidentally, it forbids its citizens to participate.

In the United States, three small municipalities levy no city taxes. One of these is Colby, Kan. According to its mayor, Colby gets its revenue from profit on the municipally owned water and light plant, which also serves six nearby towns.

Colby has no other sources of revenue except fines and a very small income from licenses. The city levied no taxes last year, and recently passed a resolution to levy none this year. It has a population of 1,900, is a county seat, and is eager to attract new population, especially skilled mechanics and capitalists with funds to invest in land.

♦

IN MERGERS, financial and industrial, the crucial issue is usually one of manpower. Wall Street has heard that a prime motive for the absorption of the National Park Bank by the Chase National Bank was to get Charles S. McCain as president. Mr. McCain came to New York from Little Rock, Ark.,

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only three years ago. He is one of a long string of Southerners—and incidentally of men from Little Rock—who have drifted to key executive jobs in the North. Mr. McCain ascribes such progress as he has made to his capacity to retain good friends.

Mr. McCain feels that the day of standpattism in banking has passed.

"Conservatism," he told me, "is still important, but nowadays a banker must have an open mind. He must realize that conditions are rapidly changing, and that the whole tempo of life has been enormously speeded up. With the radio, airplane, telephone and automobile, it is now feasible to accumulate the experience of 1,000 years in the span of four score and ten.

"In former times, a banker could chart out the business of the forthcoming year with a fair degree of accuracy. He could estimate the range of interest, and knew when peak agricultural and commercial demands would be felt. Nowadays, no one knows what to expect tomorrow. We are dealing with unprecedented problems and conditions.

"Yet in New York, apart from the security and foreign departments, the problems laid on my desk for decisions involve the same principles which arose in Little Rock. The chief difference was that you had to add ciphers to the amounts involved."

◆

MUCH of the remarkable progress recently made by business has consisted of cashing in on scientific heritages from the past. The Cadillac Motor Car Company, in a thought provoking advertisement, wisely pointed out that we can thank certain ancients for many of our mechanical marvels including motor cars.

"We are inclined to think of motor cars, radios, phonographs, and motion pictures as modern inventions," the company says. "And they are to a large degree. But they could not have been invented had not many fundamental laws in mechanics, engineering and electricity been established long before these devices were thought of.

"Motor cars are tremendously indebted to the past. Consider, for example, just the transmission.

"Many people, not mechanically inclined, would probably say it was like a box of gears. So it is and gears remind us of something we had almost forgotten. It is generally taught when we study elementary physics. It is this:

"Every machine can be reduced to a few simple elements, called the Six Mechanical Powers. The primary ones



Lights will be blazing tonight

IN MANY A NEW ENGLAND TOWN

In Attleboro, a factory is humming twenty-four hours a day turning gold into watch chains for next Christmas trade. In Bridgeport, a production manager, telegram in hand, wonders if three eight-hour shifts will turn out radio parts in time to meet a pressing order. In Worcester it may be grindstones, Portland—paper, Hartford—airplane motors—night shifts are working to meet the nation's incessant demand for New England's quality products.

Two hundred and seventeen separate and distinct industries operate here, and New England's prosperity, because of its amazing diversity, does not *depend on any single one.*

Genuine opportunities exist here today for new ventures and for the expansion of enterprises already established. A bank which has served New England since 1784 will supply you with any facts about the territory you may care to know.

The FIRST
NATIONAL BANK *of*
BOSTON

1784 ★ ★ 1929

CAPITAL & SURPLUS $50,000,000

New England's Largest Financial Institution

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The sudden expansion of aviation into nationwide organizations, such as the Curtiss-Wright Corporation, covering every phase of the industry under centralized control is not mere chance. Such an organization, representing securities of more than $220,000,000 market value, is the intelligent response to a new economic need.

Aviation can not be compared to automobiling. It demands, for success and safety the highest uniform standards of pilot training, servicing facilities throughout the country, and airports keyed to the highest service efficiency day and night. Today, one does not buy an airplane—but a national organization which makes the individual plane a sound modern utility.

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Shares in the South
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COMMON STOCK

WRITE for details of this Investment Trust which diversifies its funds among the securities of institutions and corporations sharing in the South's industrial growth.

Caldwell & Company
Investment Bankers
400 Union Street Nashville, Tenn.

are the lever, the inclined plane and the pulley. The others, derived from these, are the wheel and axle (derived from the lever) the wedge and the screw (both derived from the inclined plane.)

"We are indebted to Archimedes, Galileo, Leonardi Da Vinci, Stevinus, Newton, and other celebrated mathematicians and scientists of the past for formulating the principles of the Six Mechanical Powers and developing their application so that we can use them today in ways the ancients never dreamed of."

Neither these older pure scientists nor their heirs and assigns are collecting financial royalties, so it is fitting that a business concern should make the gesture of paying a deserved tribute.

♦

FRANK L. SWEETSER, business doctor and expert in management, said that the modern executive is getting rid of two fallacious ideas. One was that you should never tell your competitor anything.

The modern business man has discovered that his competitor finds out most things through grapevine methods and that he might as well get the credit of telling him openly what is going on. Much of the recent progress of American business has come from the free interchange of information among competitors directly and through trade associations. The other fallacy was that you should not tell employes the secrets of your business.

Progressive managers have learned that they enormously improve human relationship by consulting employes and taking them into their confidence. For one thing, according to Mr. Sweetser, the new policy of open covenants openly arrived at helps to dispel many errors in the minds of workers.

One common mistake of uninformed toilers is that if a concern had a capital of a million dollars, it had the fund available as cash either in the bank or in its vault. Free discussion makes for understanding, and promotes cooperation which is invaluable in overcoming inertia.

♦

THE RAPID opening of new factories in the South gave poor whites an opportunity for larger monetary wages than had previously been available in rural communities in the hills. Accordingly, though wage scales were below the northern standards, the workers seem contented, and the economic renaissance of the South was promoted partly on the promise of bargains in human labor. But in recent years, the southern industrial workers, lacking the protection of social legislation such as has been enacted in Massachusetts, Illinois and New York, and the benefits of the higher wage standards of the North, have become somewhat dissatisfied. In recent weeks, this dissatisfaction has been exploited by labor agitators, conservative and radical. The Communistic outbreak in Gastonia, N. C., was a symptom of the new ferment.

The South has yet to learn what outstanding American industrialists have discovered—that high wages for efficient work constitute the basis of genuine prosperity. As its industry evolves, the South, it is hoped, will learn this lesson. Meantime, the disparity in labor standards constitutes difficult competition for the northern states. Except for constitutional difficulties, Massachusetts might be entitled to a protective tariff against South Carolina.

Leo Wolman, the labor economist, told me:

"My own opinion is, of course, that the prevalence of low wage levels and long work weeks in the South have already contributed much to reducing standards of labor in northern competitive states and that as long as this state of affairs continues northern levels are likely to be further depressed."

The competition between geographical areas is another phase of what O. H. Cheney calls the "new competition."

♦

UNLESS there is a marked and unexpected slump in the final third of the year, leading railroad, public utility, and industrial corporations are likely to earn more in the current year than in any previous twelvemonth. That basic fact tends to generate financial enthusiasm, in spite of the technical difficulties imposed by punitively high interest rates, which are intended to place a damper on speculative ardor.

Estimated net income for the railroads for the first half of the year reached $552,000,000, compared with an actual net of $462,207,347 in the corresponding six months of 1928.

If, during the second half of the year, railroad earnings prove no better than in the second half of 1928, the aggregate net income for the entire year will amount to $1,284,000,000, which would surpass the 1926 peak of $1,231,028,559.

Railroad net income, including the records of Class I systems and the larger switching companies, has exceeded $1,000,000,000 annually each year since 1924.

LEADING MEN OF THE NORTHWEST

On Directorate of Northwest's Greatest Banking Group



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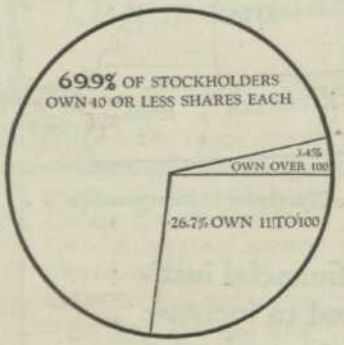
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Members of the New York, Boston, Chicago, Cleveland, Pittsburgh and Detroit Stock Exchanges and the New York Curb Exchange

Towns Have What Cities Promise

(*Continued from page 26*)

between the individual members of the community. The small city can utilize in its development practically every one of the achievements of the last few years.

Inoculation against disease, the purification of sewage, a good water supply the use of electricity in all its forms, the internal combustion engine, the automobile, the telephone, the telegraph, the radio, the airplane, the motion pictures—every housewife, mechanic and manufacturer may utilize all these various inventions.

For census purposes, the Government has set up 280 classes of industry. Out of this number it is entirely possible for the small city to encourage such a diversity of industry and such valuable working conditions as to build up a community that will make an impression upon the rest of the country.

Every industrial community should maintain a research bureau to bring to the attention of its business and professional men the opportunities for investment and development which are suitable for the section they live in.

In the last few years, there has been a great change in industry. It has been a period of consolidations of plants, and it is, therefore, interesting to study the reports of those impartial bureaus whose duty it is to analyze cost of production and cost of selling. It has been demonstrated that the great manufacturing plants are not always the most profitable or the most efficient.

The measure of efficiency

AS A means of developing these facts, statisticians have devised a new measure called "Kilo-Man-Hours," by which to judge efficiency in production. It is called "a convenient method of rating industries and measuring managerial ability." These investigators have found that some industries can produce with the same amount of labor a greater value of product than other establishments of apparently greater capacity.

The report goes on to say, "Even in the same industry the difference between the maximum and the minimum rate of production for a fixed amount of labor is great, and small concerns on the whole produce more than larger concerns on the basis of labor employed."

On this plan of comparison, it seems

to be possible to "measure the results of industry by the ratio of the value of the product to a fixed unit of man-hours of labor."

As a writer in *The Executives Magazine* says, "Now the astonishing and highly significant fact which emerges is that smaller companies in many instances showed higher physical production per kilo-man-hour than larger organizations in the same industry. In 35 different industries, the smallest companies had a higher rate of production than the largest company considered; in only 18 industries was the reverse true."

These are the first authentic figures I have seen justifying previous claims that if the plant is too large the management loses touch; whereas, in the smaller plants which naturally exist in moderate-sized communities there is such close personal contact between the management and the workmen that the pride of production extends through the whole organization.

If a large plant seeks a particular location, it should not be discouraged. The expressed desire to locate in a small city is in itself proof that the projectors appreciate the local advantages. The inference is that the large plant will fit into the industrial life of the city without disturbance.

Small plants desirable

HOWEVER, in welcoming large plants, the community must not neglect small industry, because a number of moderate-sized plants will be more beneficial in the long run than one or two enormous industries.

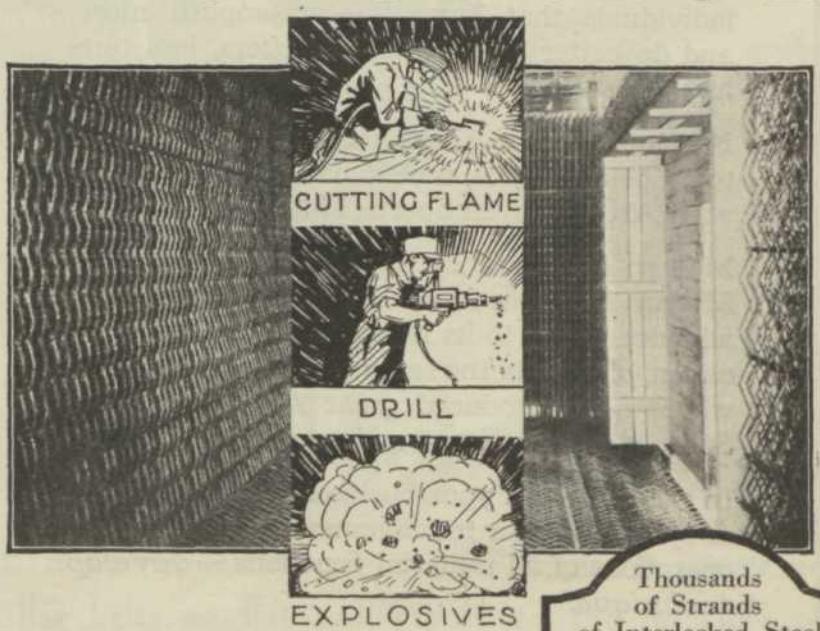
With a multiplicity of products there is bound to be a more uniform prosperity and even when one of these smaller plants goes out of business the bad result is minimized.

The ideal plant is one which brings in raw materials and converts them into products which are able to obtain a wide distribution area. Such natural products as originate within the immediate vicinity should be used, and the specialization in production, which we are now assured can be achieved by the small plant even better than in the large plant, is an encouragement to individual enterprise.

The moderate-sized city will benefit from the improvement in the architecture of business buildings, for the owners of these buildings are paying more attention to their appearance than was customary 15 or 20 years ago. The public resents a factory-looking building on the better streets and looks for sub-

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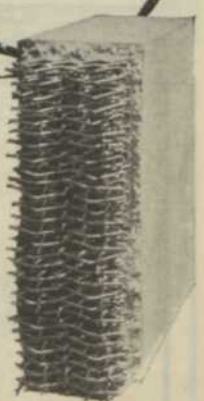


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Washington, D. C.

stantial and handsome buildings even in the suburbs. The "false-front" general store is disappearing.

Besides the advantages to the manufacturer, the attractions of a community of from 50,000 to 100,000 people are manifest when considered from the standpoint of the employes. It is not within everyone's capacity to maintain a place in the country and to continue business in the city.

In the smaller communities, these two may be combined so that through the modern system of financing home building those of moderate income may enjoy the benefits of community contact and at the same time may reap all the benefits of the social life of the suburban communities.

Schools are usually better

THE desire of education has resulted in more attractive and healthy school buildings in the small cities than in the overcrowded large cities, where school children sometimes through lack of facilities are given only a "part time" education and even then perhaps in temporary wooden shacks. It would be hard to find today a city of 100,000 people, or even less, without parks, public playgrounds, public golf courses, fine schools, numerous churches and a city government more devoted to the interest of the inhabitants than appears to be the case in the great centers of population.

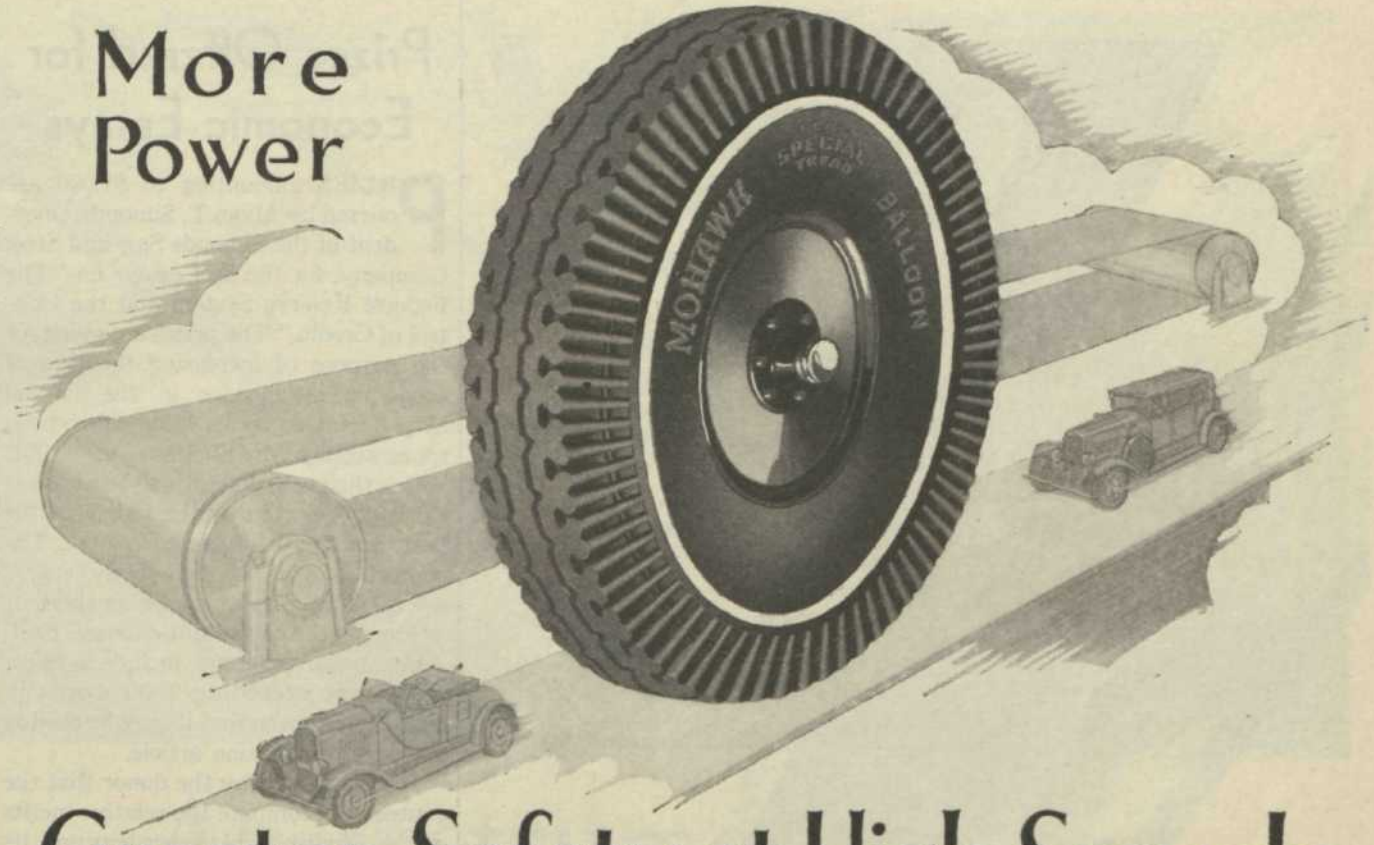
In addition to the business opportunities and reasonable expectation of profit in the smaller cities is the question of health. It is true that many of the great cities have so perfected their water supply as to reduce disease from that cause, but there is no reason, with modern science at hand, why the smaller city cannot have just as pure water, with more air, more sunlight, more trees and grass.

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A man who can live in the midst of flowers and trees and grass and still be within 15 or 20 minutes of his place of business is a lucky person indeed.

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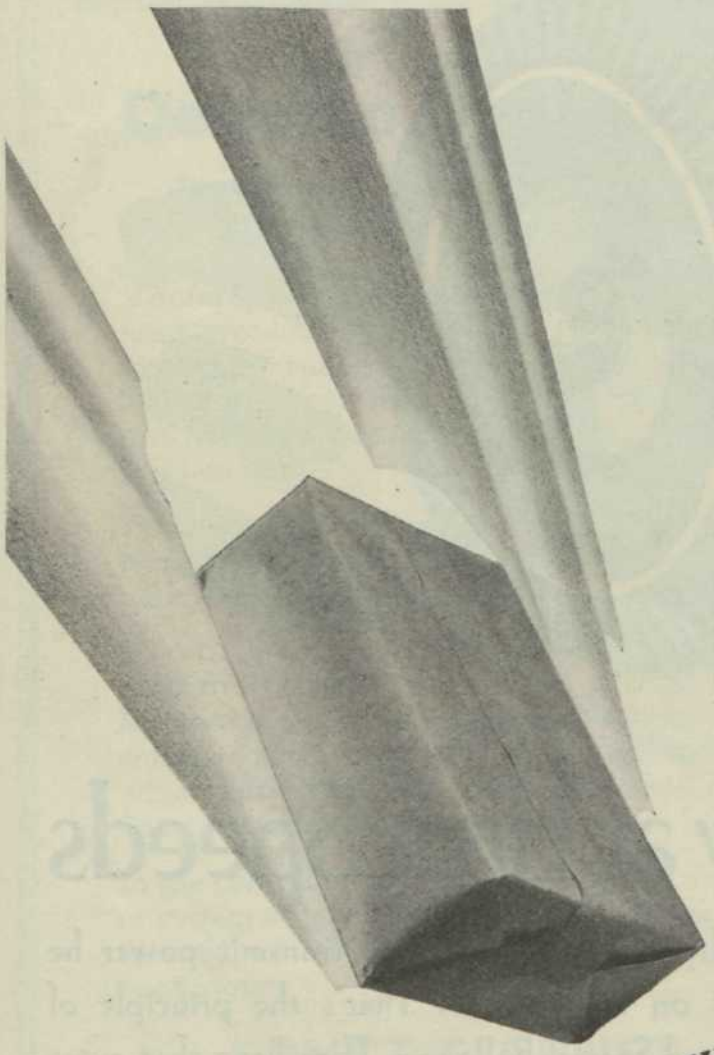
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Prizes Offered for Economic Essays

PRIZES amounting to $1,500 are offered by Alvan T. Simonds, president of the Simonds Saw and Steel Company, for the best essays on "The Federal Reserve System and the Control of Credit." The prizes are given for the purpose of increasing the general economic intelligence in the United States. Similar competitions have been sponsored by Mr. Simonds since 1921.

One thousand dollars is to be awarded the essay selected by the judges as the best, and $500 for the next best. The contest is open to everybody everywhere. The essays may be as short or as long as the contestant chooses. Each essay, however, must include a summary, not exceeding 2500 words in length, written so that it may be used as a separate magazine article.

It is suggested by the donor that the contestants compare the relative merits of the English banking system and its control of credit with those of our Federal Reserve System, and that they also make a study of the part played by the cost of credit in advancing and retarding general welfare and prosperity.

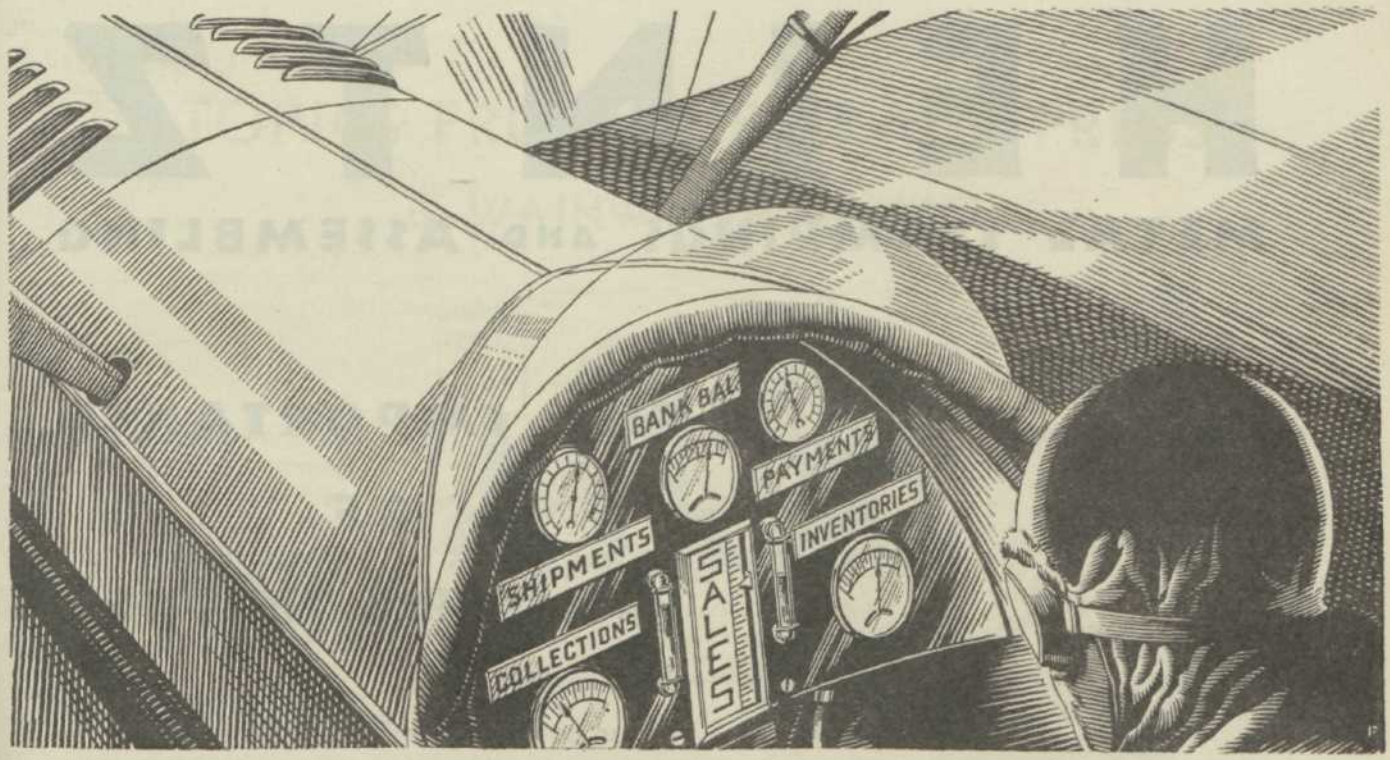
The contest closes December 31, 1929. All essays should be in the hands of the Economic Contest Editor, Simonds Saw and Steel Company, 470 Main Street, Fitchburg, Mass., on or before that date.

We're Proved Honest

THE honesty of the individual American is often praised. Last April we commented on a report of a loan company which claimed that over a period of 40 years less than three per cent of its borrowers had failed to repay their loans.

Now comes Arthur J. Morris, president of a company financing instalment sales, to say that 99½ per cent of Americans are honest. He quotes figures from Morris Plan Banks showing that of the 6,000,000 individuals dealing with the Morris Banks, less than half of one per cent proved bad risks. He continues:

"Such figures at least prove a distinct tribute to the average American citizen, especially when, less than 20 years ago, Morris Banks were warned that the individual character in the matter of finances was distinctly a secondary factor as compared with capital or collateral."



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A glance tells you whether you are gaining, slipping or standing still

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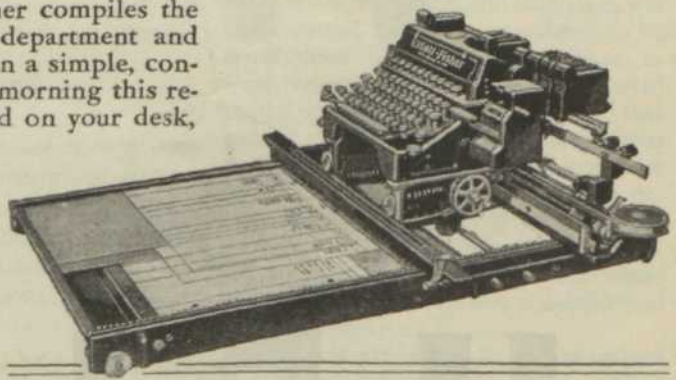
When totals are a week old or a month old, they may present a picture directly opposite from the one which exists TODAY.

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TOPICS FROM THE TRADE PRESS

By WAINWRIGHT EVANS



A press float featured the parade held in New York in 1788 in celebration of the Constitution's ratification

THE problem of organizing the wheat-growing farmers to prevent an overproduction which would make it impracticable for the Farm Board to maintain prices at a satisfactory level is already coming to the front.

The *Industrial Digest* reports Representative Haugen, one of the authors of the McNary-Haugen bill, as saying:

> Under the broad powers of the bill the Farm Board is not restricted to any particular means. That is as the President wanted it. The bill provides that there shall be economic parity between agriculture and industry and that means giving surplus crops the benefit of the tariff.
>
> It provides that advantageous domestic market conditions shall be given the domestic producers and this means making the tariff effective also. There is no way to do this except by raising the price. If this is done at all it means that the Government must take up the surplus and stand the loss.
>
> The situation can be worked out if the wheat producers can be organized at something like 100 per cent. Even 75 per cent could be effective, and of course this 75 per cent will have to bear the expense of maintaining prices while the outsiders get the benefit. I do not believe any other plan has been under consideration and I do not see how any other plan would work.
>
> It is doubtful if the organization can be developed in time to meet the present wheat prices, although that is one of the pressing problems of the day.

This comment, together with President Hoover's statement that after many years of contention we have at last made a constructive start at agricultural relief, and that the bill is the most important measure ever passed by Congress in aid of a single industry seems to indicate confidence that the farmer can be organized and educated to hold down his acreage of crops.

♦

THE POSSIBLE future service which the Bank for International Settlements may be able to perform already forms a lively subject for speculation, one which economists have not been slow to seize. So far as present usefulness is concerned, J. P. Morgan summed it up on his return from the conference at Paris by saying that in his judgment the Bank of International Settlements was

> the one thing which the Conference was able to discover which would solve the problems of international settlements arising out of the war.

Paul M. Warburg, chairman of the International Acceptance Bank, said, "I think the injection of a bank for international settlements was a most happy and ingenious idea, not only because through its medium it will become possible to substitute a group of the best business minds as judges for a political body, but also because in the field of economics and finance the bank is likely to play the part of a balance wheel. It is likely to act as a stabilizer not only between Germany and her creditors but also between other countries."

♦

THE *Journal of Commerce* approves the refusal of the Government to permit the Federal Reserve Bank to participate in The International Bank. Commenting on Mr. Lamont's attitude toward the International Bank, the *Journal* says:

> It is evident that, to Mr. Lamont, the importance of the bank lies not in its usefulness as a mere clearing house for transfers of reparations and other international debt payments but in the large discretionary powers with which it has been endowed.
>
> "In its natural course of development," he says, "the bank may become an organization not simply or even predominantly concerned with the handling of reparations but also with furnishing to the world of international commerce and finance important facilities hitherto lacking."
>
> Meantime the bank will be carrying on various purely banking functions both of a commercial and investment sort, such as receiving and crediting current reparations payments, accepting long-time deposits and employing them in intermediate credit operations, making advances for short periods and arranging for the commercialization of reparations bonds. . . .
>
> As *The Journal of Commerce* recently pointed out, the International Bank is, in fact, empowered to do many things which the Federal Reserve banks may not do themselves. Unless Congress takes some action redefining the powers of the Reserve banks in foreign operations, to permit their participation in an institution of large and vague competence, there is no warrant in law for permitting the Reserve banks to be represented in the new organization. Furthermore, apart from the legal restrictions, the tasks assigned to the bank or those that may conceivably fall to its lot are of a character that might be subject to serious abuse if nationalistic, political considerations were permitted to influence the directors.
>
> In spite of assertions to the contrary, dangers on this score are great since the heads of the various central banks who will be in control cannot be considered to be emancipated from political allegiance to their respective governments. The United States, in any case, is well aware that policies that might suit both the financial and political aims of European countries might be diametrically opposed to our domestic interests. We can protect those interests better by refusing participation than by conceding a representation that would leave one American to face a company of European bankers.
>
> Of course the end will not be gained should the Administration refuse official recognition only to suffer private interests to commit the Reserve banks to policies that they may not directly assist to develop.

♦

EXPRESSING strong approval of the report of the Young Committee on Rep-



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In an equally positive manner the Comptometer, by means of the "Controlled-Key," automatically bars incomplete keystrokes in three different ways:

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arations, the Manchester *Commercial* expresses the hope that the Young Plan will presently open the way to further consideration of the problem of war debts, possibly with a view to their complete cancellation. The *Commercial* concludes:

This, of course, definitely connects up the whole reparations plan with the problem of war debts, which still remains to be solved. The United States has hitherto turned a blind eye to this connection; but if we interpret the new British Government's policy rightly they intend to make it plainer in the future.

And even if they do not carry America to the only final and satisfactory solution of both problems by wiping out both war debts and reparations it is at least reasonable to expect—as we suggested last week—that Germany will cease, to all intents and purposes, to pay reparations within the present generation.

◆

CRITICS of the Young Plan are offered, with the compliments of the *Industrial Digest*, the following editorial comment on their methods of cerebration. Says the *Digest:*

It was perhaps inevitable that so great an achievement as the reparations settlement arrived at by the Committee of Experts in Paris under the leadership of Owen D. Young which permanently removes these payments from the dangerous field of politics should meet with opposition from the narrow-visioned among the members of Congress.

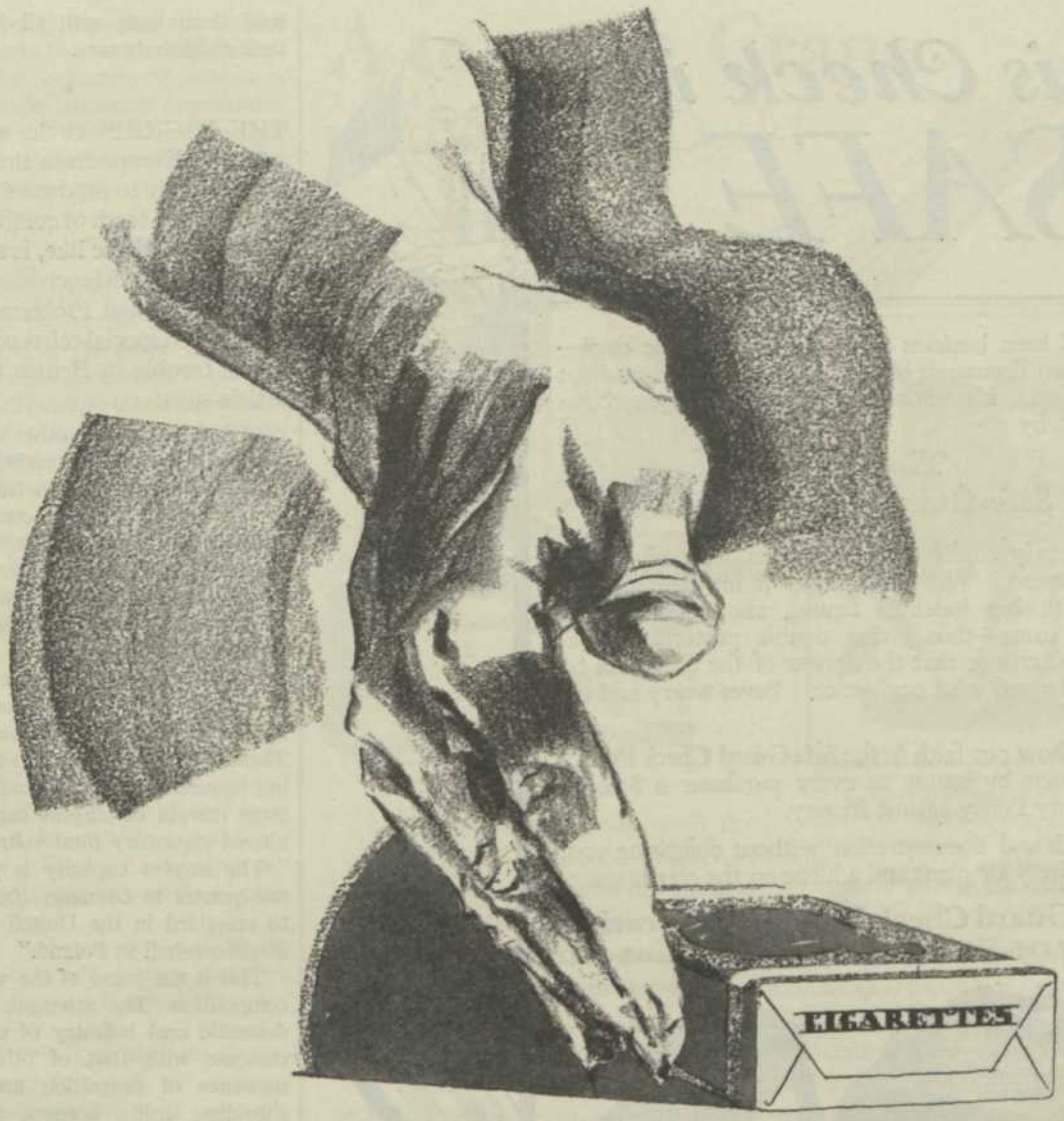
The administration, however, lost no time in an attempt to dispel these doubts. High government officials asserted that there had been no change in the American policy of viewing the allied debts to the United States and German reparations as entirely unrelated subjects.

The fact that this policy is utterly ridiculous on its face has nothing to do with the case. The former allies have got to look to Germany for reparations with which to meet their obligations to this country. But there are certain members of Congress—and strange enough some of them are more or less influential—whose insistence that allied payments to this country and German payments to the allies must have no relation with each other amounts to a policy of mania.

Fortunately for the world, however, these little creatures and their Lilliputian ideas had no representation in the Committee of Economic Experts under Mr. Young's chairmanship.

The silly part of the business is that these little fellows are perfectly satisfied if you give them a few empty words such as "there is no connection between German payments to the allies and allied payments to the United States."

These few words, though they quite obviously bear no relation to the facts, have the effect of an old mammy's lullaby and

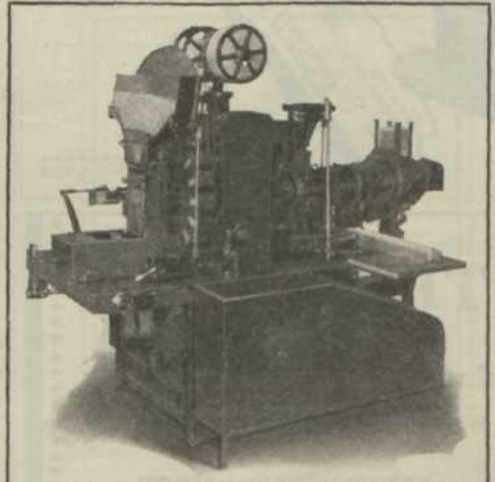


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N. B. Sept. 1929

NEXT MONTH

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send them back with all fears quieted to their childish devices.

♦

THE VICIOUS circle which has resulted in Europe from the necessity for each country to produce exportable surpluses in the teeth of competitive tariffs, subsidies, and the like, is set forth in an article in the Manchester *Commercial* on International Problems in the Coal Crisis, with special reference to the cause of the trouble in British industry. The article says:

In his speech the other day Sir David Llewellyn put as the condition of a return to "really good times in this country" an export of 80,000,000 tons, compared with the 50,000,000 tons exported last year. "Foreign competitors," he said, "have lost shillings and shillings a ton to compete with us, but today they find themselves in an even worse position than we are."

If the competition is fierce now, what will it be before the British industry has increased its exports by more than a third? These hopes largely ignore the most striking feature of the whole coal problem—the large margin of surplus capacity and the almost stationary total volume of demand.

The surplus capacity is put at "about one-quarter in Germany, from one-quarter to one-third in the United Kingdom, and about one-half in Poland."

This is the cause of the vicious circle of competition. The attempts to enable the domestic coal industry of one country to compete with that of others by special measures of protection and assistance—subsidies, tariffs, licenses, and the like—encourage the further cutting of prices in all in the hope of recovering markets.

The cutting of prices naturally leads to further measures to limit the effects of competition. "In a word," summed up the League Committee, "the evidence suggests that the general effect of most, though not all, of the local and national measures . . . is to shift the incidence, while on balance increasing the extent, of the depression in the coal industry as a whole."

♦

IN A PLEA for scientific production and distribution of goods, to the end that the buying power of the whole world may be increased, and to the end that we may have mass production without its becoming overproduction for lack of adequate markets, Edward A. Filene recently delivered an address through Radio Station WEAF, in which he said:

With only half of the population of Great Britain, France, Germany and Italy combined, we produce twice as much as they all do put together. Our national income is nearly five times that of England, seven times that of France and Germany and 18 times that of Italy.

This vast production is largely due to mass methods. Scientific methods of pro-

duction have greatly increased the number of articles or parts the worker can produce per day and the production of millions of articles in a single industrial organization greatly reduces the overhead expense per unit. One of our most efficient shoe factories, for example, makes more than 5,000,000 pairs of shoes yearly on which the overhead charge is less than three per cent of the retail price per pair.

These extraordinarily low overhead charges show why mass production will meet and beat all competition. The usual "overhead" expenses are from 10 per cent to 15 per cent and often more. Therefore this elimination of production wastes can be obtained only by producing in mass quantities—and mass production therefore has resulted in surplus goods, which, in spite of our high wages and salaries, cannot be sold in the domestic market but must be sold abroad. If it is not possible to export these surpluses then we will have supercompetition in the United States destroying profits and causing failures in business,

This will result in wage cutting and unemployment and the unemployed will cease to be effective buyers in the domestic market, thus still further decreasing production and employment. If this process is allowed to go on the nation will face a business and financial crisis which will curtail or destroy our national prosperity and the individual prosperity of most of us.

But if we can find markets abroad for our surpluses, and hold and develop them, we will make national and individual prosperity permanent.

How can we win and hold the foreign markets necessary to absorb the surpluses under mass production and keep our population profitably employed?

First—The markets must be friendly. As a nation we must have the good will and respect of our customers just as the individual merchant must have these things.

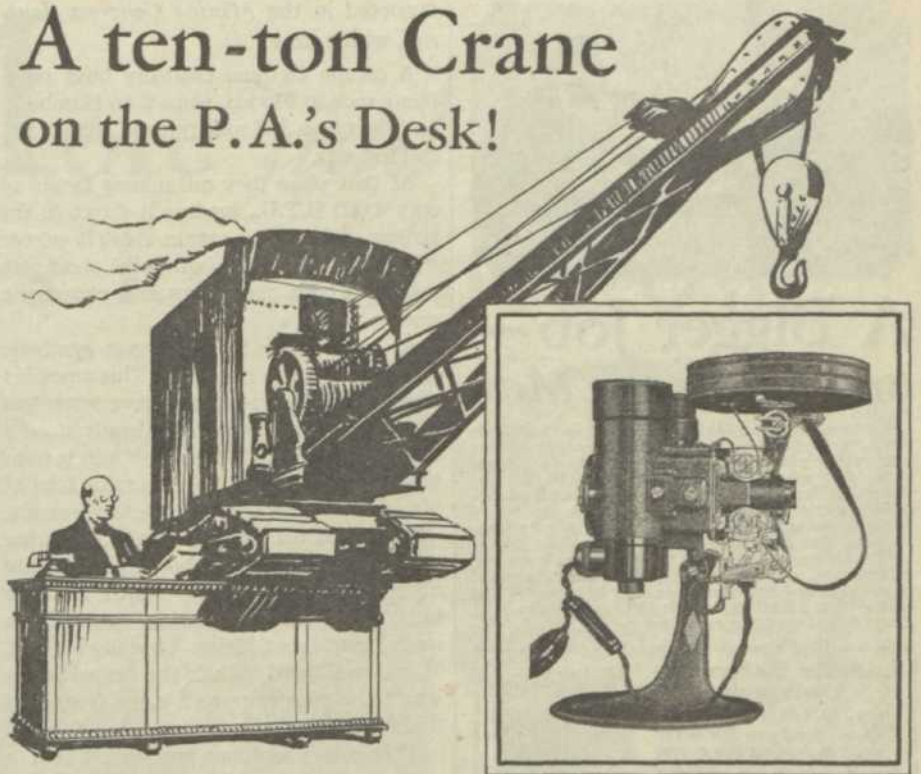
Second—The markets must be accessible. That is, the nations with whom we can trade to mutual advantage must not shut off our goods by excessively high tariffs. Most nations today have surrounded themselves with high tariff walls and the even flow of trade has been seriously hampered or disrupted.

Third—But it is of little value if a nation is friendly, and has no tariff barriers against our goods if at the same time that nation is unable to buy our goods because its people lack buying power. Therefore the main concern is to increase the buying power of the world. For one thing, we can encourage and aid the nations of the world to adopt the same scientific methods of production and distribution that are making us prosperous.

•

HOW research has enabled the Germans to utilize certain products which we ought to be utilizing in the same manner instead of relying on Germany for the finished product, was told by B. G. Klugh at the recent Industrial Development Conference in Atlanta, as

A ten-ton Crane on the P. A.'s Desk!



Filmo Continuous Projector

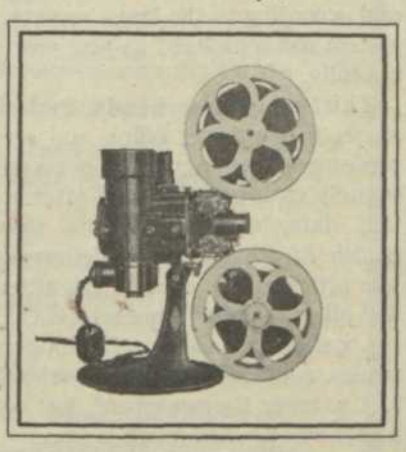
Filmo 57-X continuous projection attachment installed on regular Filmo Projector. Fully automatic. Special reels accommodate up to 150 feet of 16 mm. non-inflammable film equal to 375 feet of standard 35 mm. film.

. . . yes, almost literally, with the Filmo 57-C Business Projector. Light, compact, producing motion pictures of theater-clear brilliancy, it tells your sales story better, quicker, and more effectively than any other means known to salesmanship. Plug it into any 110 volt light socket, throw in the clutch, and it operates itself. For hammering home a sales point, it can be stopped for still projection of a single scene without damage to the film.

The new Bell & Howell Continuous Projector attachment converts the Filmo projector, in a moment, into an automatic continuously operating machine, showing a film over and over again without interruption and requiring no attention of any kind. For show-window or similar display projection, it is the greatest attention-getter and attention-holder devised. And it can be converted back for regular use in but a moment.

From tractors to toys, Filmo Projectors can sell or advertise almost anything manufactured. In industry it can do a job for your personnel and your public relations departments that a human can scarcely do.

Write to us for the leaflet, "Filmo Projectors for Business Use." It will point the way out of many problems.



Filmo 57-C Business Projector

The ideal projector for business use. 250 watt 5 ampere lamp, 45-50 strong condenser, variable voltage resistance and voltmeter, providing maximum illumination for showing sales films in offices, lodges, convention halls, etc. $240 with case. Other models $190 and up.

BELL & HOWELL

Filmo

"WHAT YOU SEE, YOU GET"

BELL & HOWELL CO., DEPT. I, 1812 LARCHMONT AVENUE, CHICAGO, ILL.
NEW YORK . HOLLYWOOD . LONDON . (B. & H. CO., LTD.) ESTABLISHED 1907

When writing to Bell & Howell Co. *please mention Nation's Business*



A Bigger Job— *and You're the Man*

Are you hunting a bigger job, or does the bigger job hunt you? Why waste priceless years at routine work, when you can acquire at home in a comparatively few months the specialized knowledge for which big firms pay big money? Thousands of men have greatly increased their incomes by home-study business training under the LaSalle Problem Method. Let us show you how you can do just as well or better. The coupon will bring you complete information, together with details of our *convenient payment plan;* also your free copy of a remarkable book—"Ten Years' Promotion in One." Make your start toward that bigger job *today.*

—*Find Yourself Through LaSalle!*—

LaSalle Extension University
Dept. 9374-R Chicago



Please send me full information regarding the course and service I have marked with an X below. Also a copy of "Ten Years' Promotion in One," all without obligation to me.

- ☐ **Business Management:** Training for Official, Managerial, Sales and Departmental Executive positions.
- ☐ **Modern Salesmanship:** Training for position as Sales Executive, Salesman, Sales Coach or Trainer, Sales Promotion Manager, Manufacturers' Agent, Solicitor, and all positions in retail, wholesale or specialty selling.
- ☐ **Higher Accountancy:** Training for position as Auditor, Comptroller, Certified Public Accountant, Cost Accountant, etc.
- ☐ **Traffic Management:** Training for position as Railroad or Industrial Traffic Manager, Rate Expert, Freight Solicitor, etc.
- ☐ **Law:** LL. B. Degree.
- ☐ **Banking and Finance:** Training for executive positions in Banks and Financial Institutions.
- ☐ **Modern Foremanship:** Training for positions in Shop Management, such as that of Superintendent, General Foreman, Foreman, Sub-Foreman, etc.
- ☐ **Industrial Management:** Training for positions in Works Management, Production Control, Industrial Engineering, etc.
- ☐ **Personnel Management:** Training in the position of Personnel Manager, Industrial Relations Manager, Employment Manager, and positions relating to Employee Service.
- ☐ **Modern Business Correspondence:** Training for Sales or Collection Correspondent, Sales Promotion Manager, Mail Sales Manager, Secretary, etc.
- ☐ **Stenography:** Training in the new superior shorthand, Stenotypy.
- ☐ **Railway Station Management.**
- ☐ **Expert Bookkeeping.**
- ☐ **Business English.**
- ☐ **Commercial Law.**
- ☐ **Railway Accounting**
- ☐ **Effective Speaking.**
- ☐ **C. P. A. Coaching.**
- ☐ **Commercial Spanish.**
- ☐ **Stenotypy.**
- ☐ **Telegraphy.**
- ☐ **Credit and Collection Correspondence.**

Name.....

Present Position.....

Address.....

Scott's Creeping Bent for Perfect Lawns!

Sod in six weeks. A rich, velvety stretch of lawn that chokes out weeds before they can grow! A deep, thick, uniform turf that's everlasting and that makes your home a beauty spot.

The New Super-Lawn

Instead of sowing seed, you plant stolons or the chopped grass—and in a few weeks you have a luxuriant lawn like the deep green pile of a Turkish carpet. Read all about this unusual grass in our illustrated booklet "Bent Lawns." Mailed on request. Fall is the best time to plant.



O. M. SCOTT & SONS CO.
588 Main Street, Marysville, Ohio

reported in the *Mining Congress Journal,* which says:

A certain German company buys phosphate rock in Florida, ships it to Hamburg, and then by a 145 mile rail and canal haul, to Piestoritz.

At that place they are mining lignite of only 4,000 B.T.U., hauling it direct to the boilers, generating steam-electric power with which they manufacture the phosphate rock into both phosphorus and phosphoric acid.

At Leunawerke is the largest synthetic ammonia plant in the world. This ammonia has its hydrogen produced from water gas by means of coke which has already stood a 250-mile freight haul. The hydrogen is combined with nitrogen, from the same kind of air we breathe here, into synthetic ammonia.

This ammonia is then taken to Piestoritz, and combined with the phosphoric acid into di-ammonium phosphate, which is made into concentrated fertilizing materials, a main constituent being phosphoric acid. It is then shipped back to the United States where the phosphate rock came from, and sold at a profit.

This shows courage and vision and a proper valuation on constructive research. We shall continue to pay tribute unless we also proceed with constructive industrial research to an even greater degree.

♦

HOW necessary is the use of credit in the small town or city? How desirable is it? Would it be better for the ordinary small community to conduct its internal affairs on the cash basis? If so, could such a condition be brought about? The Bureau of Foreign and Domestic Commerce reports the *National Retail Clothier* as telling of a Nebraska town of 15,000 population whose merchants are trying to put practically all buying and selling in their town on a cash basis; and according to the latest reports, the system has completed its first year successfully.

Thirty business heads, including stores, a newspaper office, and several professional men agreed to go on an absolutely cash basis, on and after a certain date, announced more than a month in advance. The delivery system previously in effect was continued, and all mail orders were sent C.O.D.

Local beauty shops, plumbing companies, and produce stations refused at first to enter the agreement, but before a year was up, had fallen in line.

Business was dull for a month. Then it picked up, and soon regained its former volume, with the added advantage of cash for stock replacement and the end of bad feeling caused by overdue accounts.

After a year of trial the president of the local Retail Merchants Association said that the change had been beneficial to all, the public as well as the merchant, and that there was no probability of a return to the old system.

♦

THE possibility of making use of a powerful electric current passed through the soil to electrocute insects is suggested by J. S. Crutchfield, president of the American Fruit Growers, Inc., of Pittsburgh, in a letter to the *Manufacturer's Record.* "It is possible" says Mr. Crutchfield, "that some treatment of the soil by electricity might electrocute all the white flies in the soil. We are looking into this phase of the subject and would also appreciate any information you might have or that may come to you along that or similar lines."

It is of interest in this connection to note that the newspapers reported a few years ago the invention of a dynamo-equipped tractor which, as it plowed, produced a large voltage of electricity that passed into the soil adjacent to the plows, and killed not only all insects but all weed seeds as well. This news produced a brief flurry of interest; then the matter dropped from sight.

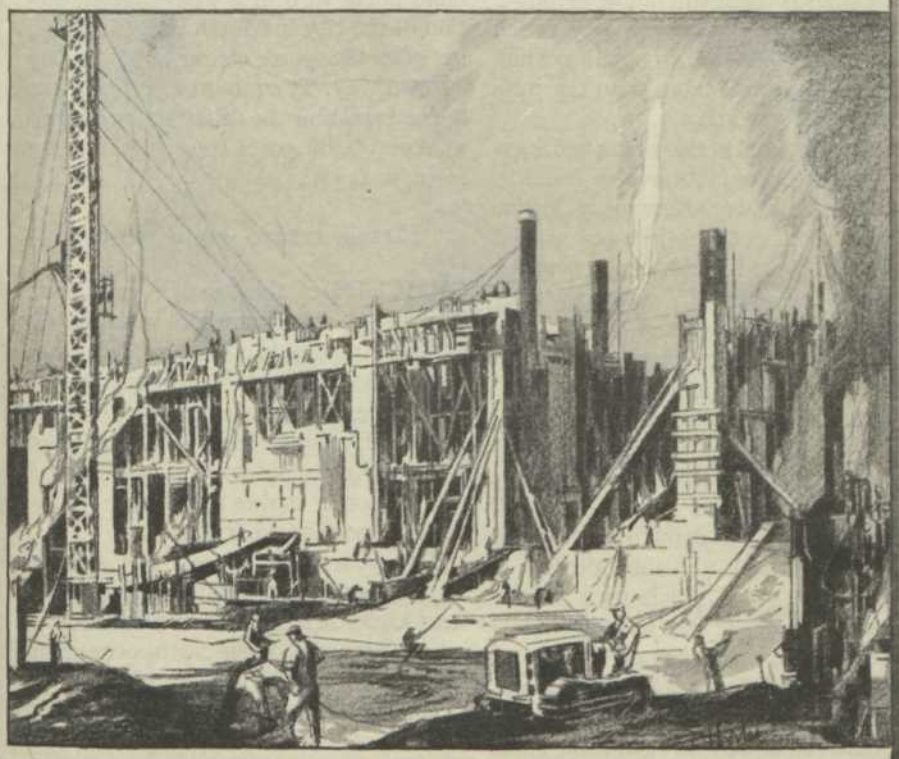
It was objected at the time that one undesirable result of such a device would be to destroy desirable and beneficent soil bacteria, such as the nitrogen bearing sort necessary for clover and alfalfa. Also that earthworms would be killed. Others contended, however, that such bacteria could easily be replaced, and that the range of the current would be destructive only to a small number of earthworms. It was said that test fields in central New York, planted after this electrical sterilization, produced remarkable crops, almost entirely free from weeds, and that cultivation to kill the weeds was unnecessary. Also that harmful insect life was much reduced, and that such pests as were found had come in from the outside.

♦

AMERICANS who squeal with pain whenever they think of the income tax would probably feel much better if they would carefully write out, frame, and hang on the wall in plain view the statement made by Louis G. Guenther, publisher of the *Financial World,* on his recent return from Europe.

Taxation in France, according to Mr. Guenther, takes 46 per cent of the national income. Taxation in Denmark takes 50 per cent of the national income. Moreover, the French export trade is steadily falling behind imports, the figures for the first three months of this year being—Exports, 12,000,000,000 francs; Imports, 15,259,000,000 francs.

More *and still more* telephones for tomorrow



Your voice starts new factories a-building

Day by day, the telephone becomes a more significant factor in social and business intercourse. As a means of communication on land and across the ocean, its use grows steadily and it is soon destined to become an accepted adjunct to travel in the air.

More and more equipment will be needed—telephones by the million, copper wire by the millions of miles, parts and accessories ranging from delicate springs to giant reels of cable, from the simple transmitter mouthpiece to the highly complex telephone switchboard.

To meet this program of expansion Western Electric's manufacturing facilities are being doubled. Huge additions to plants at Chicago and at Kearny, N. J.—a new factory at Baltimore—all this is evidence that however great the demand for telephones in 1930 or 1940, that demand will be satisfied.



In homes



In offices



In airplanes



Across the ocean



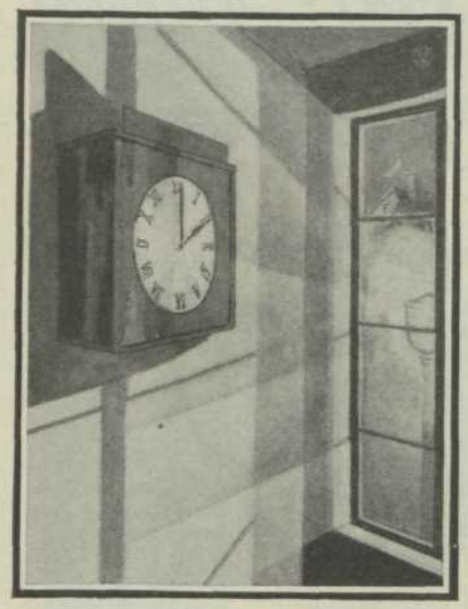
This busy scene is typical of Western Electric growth at Baltimore, Chicago and Kearny, N. J. It is growth made necessary to provide telephone apparatus whenever and wherever needed.



Western Electric

MAKERS OF YOUR TELEPHONE

Where
IS YOUR WATCHMAN



—at 2 A.M.?

Detex Watchclock Systems enable business to keep an accurate check on watchmen throughout their tour of duty.

This system on your property is positive assurance that your watchman will stay awake; will be alert to detect small fires; and attend to other duties.

Often the saving in insurance rates pays for the system the first year, even if you employ only one watchman.

Don't *guess* where your watchman is at 2 A. M.; with a Detex Watchman's Clock, you will *know.*

DETEX WATCHCLOCK CORPORATION
4153 Ravenswood Avenue, Chicago, Illinois
29 Beach St., Boston 80 Varick St., N. Y.
Glenn Building, Atlanta

Manufacturing
NEWMAN • ALERT • PATROL
ECO WATCHMAN'S CLOCKS
Approved by Underwriters' Laboratories, Inc., and Factory Mutuals Laboratory

DETEX WATCHCLOCK CORP.
4153 Ravenswood Ave., Chicago, Ill.
Send me information on Detex Watchman's Clocks.
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Address.....
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DETEX

Representatives in all large cities in America and Abroad

Taking the Loss Out of Junk Cars

THE truth of the adage "Necessity is the Mother of Invention" has come home to the automobile dealers of Omaha, Nebr., as a result of their successful efforts to get rid of the junk cars which they took in on trade-ins for new cars.

The dealers found that when a prospect came to them intending to buy a new car and trade in his used one, which was about to fall apart, they always had to allow him much more than the junk car was really worth.

The dealer took in this wreck and, having it in stock, would have to resell it. Sometimes such cars brought as low as $10 while at other times they were graded up to $100 and $150. A car which should bring over $150 was generally placed out of this wreck-of-a-car class.

Once these cars were taken in they would be resold again and almost always at a loss. Then the same car would come rattling back to some other new car dealer within a few weeks.

The second dealer would then sell the junker at the usual loss only to have it come back to a third dealer.

And so it went. Each time it was traded in the dealer was forced to allow more than the car was really worth.

These dealers finally got together and found that they often lost from two to four hundred dollars on such cars. Their records disclosed that such cars were traded in as often as ten times. The average, however, was about three trade-ins.

Salvage yard is suggested

AFTER considerable research work, A. B. Waugh, secretary and manager of the Omaha Automobile Club, made a suggestion that the new car dealers start a junk yard of their own, take these junk cars off the dealers' hands, disassemble the cars, sell the parts in good condition as second-hand parts, find a market for the metal and dispose of the rest as best they knew how.

The suggestion was accepted for a trial. The dealers formed a company, took out stock in the junk yard and paid for this stock by giving junk cars. The yard is known as the Cooperative Salvage Yard of the Omaha Auto Trade Association.

Now when they take in one of these junk cars they call the buyer of their salvage yard. The appraiser gives an honest appraisal of the car, using as a basis what the car is likely to bring in the second-hand parts market. If the dealer is not satisfied with the price offered he is under no obligations to sell.

Generally, however, the price is favorable to him and he turns the car over. He takes his pay in stock or, if his stock is paid up, he gets the cash.

The new car dealers opened a second-hand parts yard in a well-traveled section of the city in March of 1927. Along in 1928 the yard commenced to pay its own way. Then another branch was opened and now the dealers have opened a second-hand parts shop in the down town district.

Metals return good profits

OFFICERS of the salvage yard have studied the metal markets with the result that metals from the junkers form one of the biggest sources of revenue.

The yard is operated in true business fashion. Every part is cleaned, polished and well inspected so that whenever a new customer makes a purchase he becomes a permanent friend.

The year 1928 placed the salvage business on a real profitable basis and now the stock has been placed on a seven per cent basis with occasional "extras."

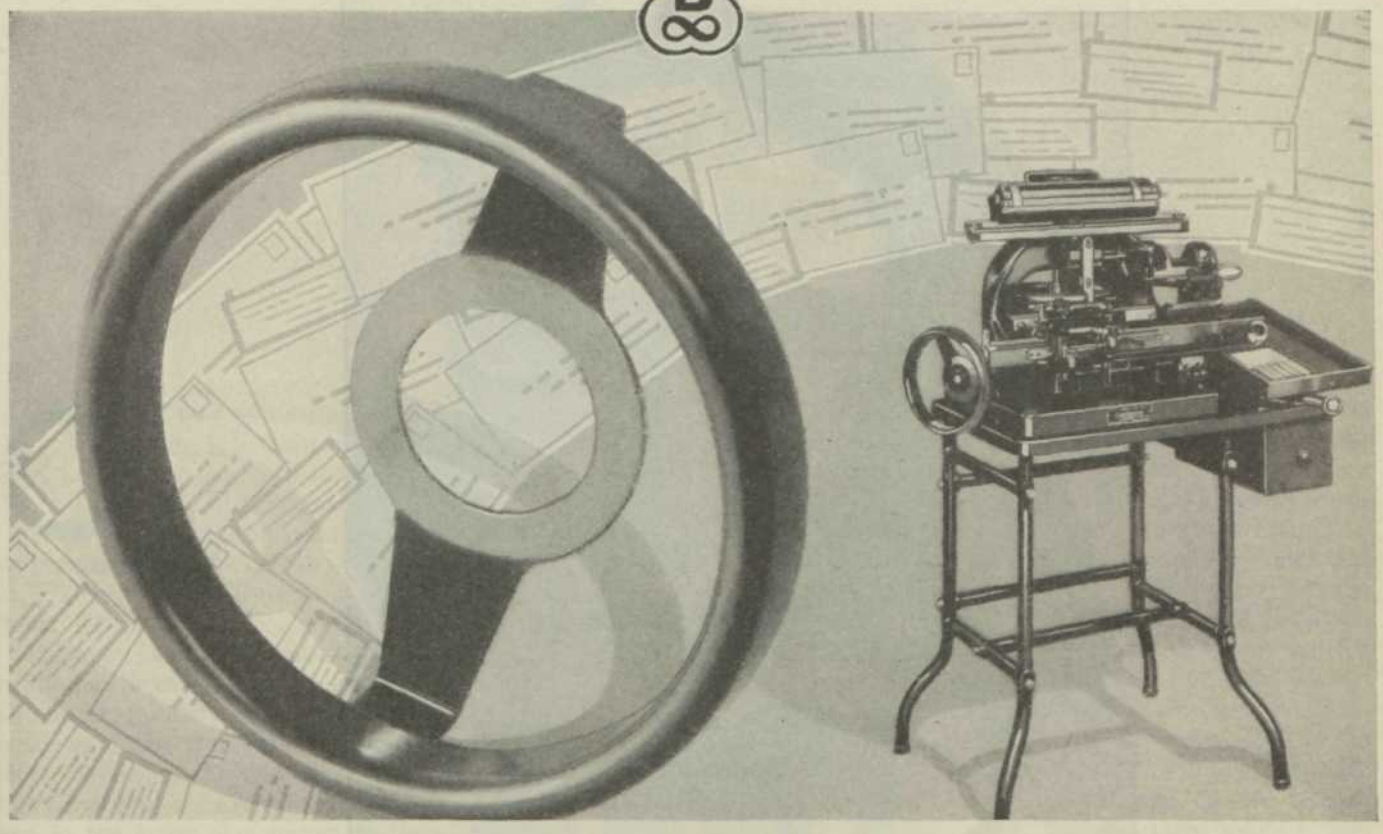
The venture which was started to rid dealers of the junk car menace and which was actually expected to show a loss has not only turned out to be able to pay its way but bids fair to show a profit.

The system has been widely copied. A. B. Waugh, the originator of the idea, estimates that since the word was passed along that the salvage yard was solving the junk car problem and also making money some fifty yards have been started.

Since its origin the Omaha yard has been the means of taking some 1,200 broken-down junk heaps from the streets of Omaha. This is the basis of the boast of the Omaha dealers that the plan will be a means of keeping all junk cars off the highways. The dealers base their argument on the fact that the so-called junkers had been traded in on an average of three times, but now, when a dealer gets hold of a junker, he will salvage it and not resell.

The dealer gets about as much from the salvage yard for a junker as he would get by selling it to a prospect who is interested in paying only $20 or $25 for a used car.

—HOMER GRUENTHER



Graphotype wheel formed of Bakelite Molded. Made by the Addressograph Co., Chicago

Addressograph adopts wheel of *Bakelite Molded* adding attractiveness and cutting costs 45%

FOR the prompt dispatch of the daily mail, thousands of offices rely on Addressograph equipment. Constant development, based upon years of operating experience, has brought to these machines many mechanical improvements, and frequent savings in cost. In keeping with this high standard, the steel Graphotype wheel has recently been replaced with one of lustrous brown Bakelite Molded, effecting a distinct saving.

Each Bakelite Molded wheel is formed complete in a single operation, and the metal spokes are firmly embedded at the time of molding. Unlike the porcelain-finished metal formerly used, Bakelite Molded does not require finishing, plating or a protective coating. These new wheels of this material will not crack or chip, and cannot stain or corrode.

The smooth, lustrous finish of Bakelite Molded is permanently attractive, and as easily cleaned as a piece of fine china. Available in a variety of colors, this modern material is being used for thousands of articles and devices, where metal, wood, rubber, fibre and other materials failed to provide the properties required. Write for a copy of our Booklet, 42M, "Bakelite Molded."

Bakelite Engineering Service. Intimate knowledge of thousands of varied applications of Bakelite Materials combined with eighteen years' experience in the development of phenol resinoids for industrial uses provides a valuable background for the cooperation offered by our engineers and research laboratories

BAKELITE CORPORATION

247 Park Avenue, New York, N. Y., Chicago Office: 635 West 22nd Street

BAKELITE CORP. OF CANADA, LTD., 163 Dufferin St., Toronto, Ont., Can.

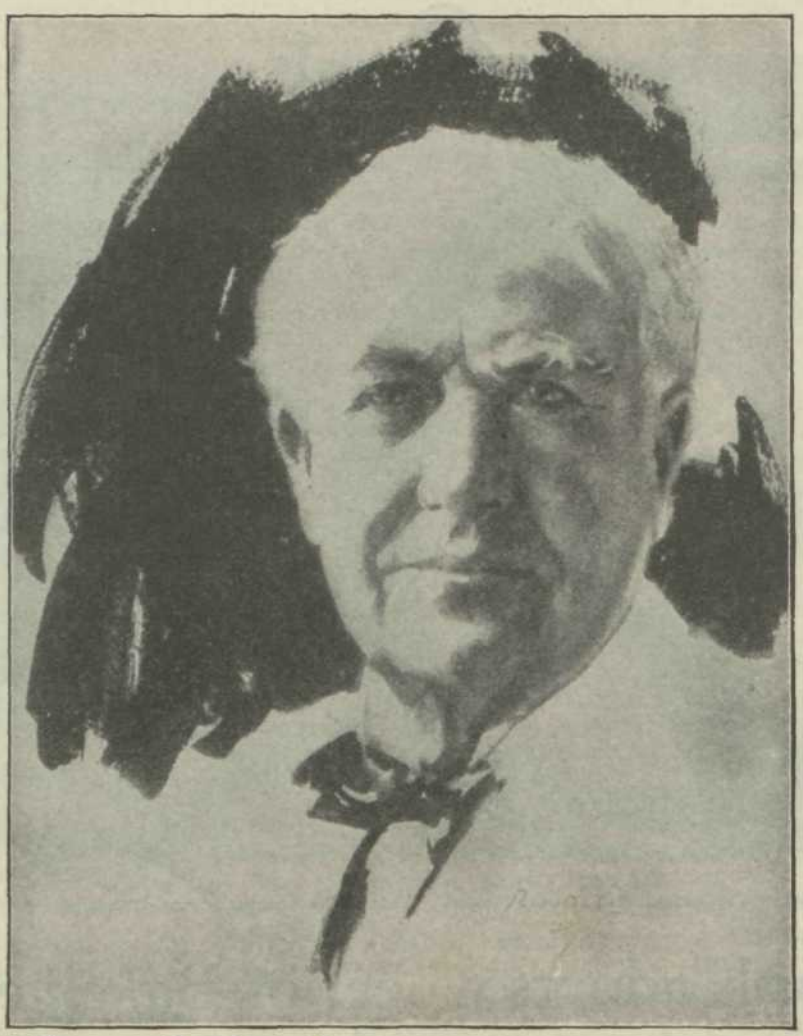
BAKELITE

REGISTERED U. S. PAT. OFF.

THE MATERIAL OF A THOUSAND USES

"The registered Trade Mark and Symbol shown above may be used only on products made from materials manufactured by Bakelite Corporation. Under the capital "B" is the numerical sign for infinity, or unlimited quantity. It symbolizes the infinite number of present and future uses of Bakelite Corporation's products."

When writing to BAKELITE CORPORATION *please mention Nation's Business*



He doubled the world's working hours

FIFTY years ago, labor was hired from sunrise to sunset. Night work was almost taboo. When attempted, costly spoilage resulted—or at best, painfully slow production under flickering gas jets. Dark, cloudy days grudgingly dragged down output. Profits were limited—in part—by light.

Then on October 21st, 1879, Edison's carbonized thread filament lamp—the first practical incandescent electric lamp—lighted and *stayed* lighted! On that day Thomas Alva Edison had made a priceless contribution to the world's production capacity—a contribution celebrated in Light's Golden Jubilee—the Fiftieth Anniversary of the first practical electric lamp. He had more than doubled the world's working time.

In the fifty intervening years, untiring research has been constantly developing and improving the electric lamp. Today it offers an opportunity for increased production and profits, undreamed of years ago. So swift is lighting progress, that a factory lighting system five years old may now be obsolete. Perhaps it is time to check up on your plant.



Celebrating the Fiftieth Anniversary of the first practical Incandescent Lamp 1879-1929

With each succeeding advance of modern lighting, a new margin of profit presents itself to wide-awake executives. Some keen, intelligent manufacturers have found that up-to-the-minute lighting increased their output as much as 15 per cent—and their profits correspondingly.

In today's brisk competition, even the most minute of margins may be a big factor in net profits. Is such a margin hiding in the lighting system of your plant? Find out for yourself. See if your lighting is up-to-date.

The National Lamp Works of General Electric Company maintains trained industrial lighting engineers in all parts of the country. One of them will be glad to make a thorough survey of the lighting conditions in your factory, and will submit recommendations without charge. He will also, if you desire, arrange for a *trial* installation of better lighting in whatever part of your plant most needs it. Write us for his services and for a free copy of the book—"Plain Facts about Factory Lighting."

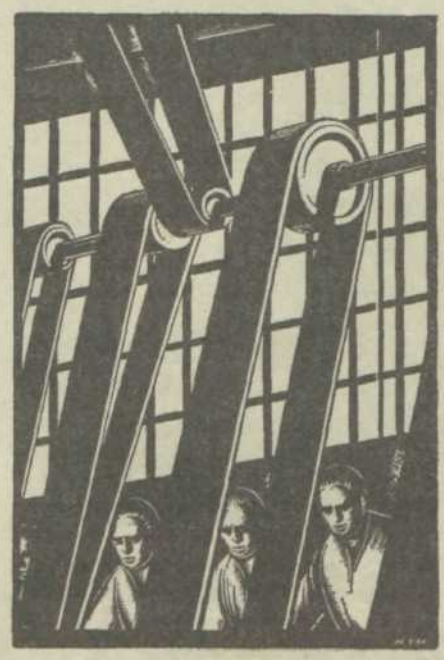
NATIONAL LAMP WORKS *of* GENERAL ELECTRIC CO.

NELA PARK CLEVELAND

When writing to National Lamp Works of General Electric Co. *please mention Nation's Business*

WHAT I'VE BEEN READING

By WILLIAM FEATHER



FROM "MEN AND MACHINES," MACMILLAN, NEW YORK

ONE way to have a good time is to resist crowding too much into the day. I have found that if I take eight hours to do my day's work, I enjoy it, whereas, if I try to jam it through in five or six, I hate it.

This noon I had a half hour to spare before luncheon. I walked slowly to the hotel, looking at people and windows, idling through a ten-cent store, observing the customers eat hot dogs and ice cream sodas. I was in the mood of a tourist in a foreign city, and refreshed myself as much as though I were on a holiday.

Usually I have a companion at lunch or I sit at a round table. One day plans went awry, so I sat alone. After disposing of a brook trout I had room for a serving of chocolate ice cream, followed by two cups of black coffee and a cigar. For diversion I turned the pages of *Punch*, smiled at the drawings, and read a review of an American play, and a quaint poem of two stanzas in which a man said he thought London with its chimes and bridges and bill boards and motor buses was fine, but he preferred to live in a suburb because there were squirrels out there.

After lunch I walked to a bookstore where I looked at some odd modern pictures by German artists. My eyes wandered over the covers and titles of a hundred books, and I spied a thin volume called "Walking," by George Macaulay Trevelyan.

By chance I opened it at a page where I read this sentence, "Once in every man's youth there comes the hour when he must learn, what no one ever yet believed save on the authority of his own experience, that the world was not created to make him happy."

I thought that was good, so I decided to take the book.

I like to walk, and wish I did more of it. I keep two dogs to tempt me out of the house after dinner in the spring and summer, and on Sundays in winter. They have become so sensitive to the word "walk" that when it is uttered they bark and lift their ears. The bookseller is quite a walker, and was delighted when I wanted the book.

♦

AT THE news stand in the office building, I recalled that one magazine contained a highly praised short story, and another an article on advertising I had promised to read. Both were for sale and were added to my collection of reading for the evening.

In the mail on my desk I found "Antioch Notes," written by President Arthur Morgan. Everything President Morgan writes is excellent. He is an idealist, blessed with great energy. This thought was developed in "Notes":

"No Providence has decreed that in the life of today integrity shall succeed and dishonesty fail. Honesty is not the best policy except as we make it so. The job of every man is to help create a society in which honesty is the best policy."

In glancing at the article on advertising, I noted that the theme was the revolution that advertising has helped to accomplish in housekeeping. The illustrations showed a woman washing clothes, a kitchen pump, an oil lamp, and a big coal range on which a boiler of clothes was steaming.

I am still under 40, (provided this article is published quickly) but the picture was a perfect reproduction of the kitchen in which my mother worked. What a life for a woman with three children, and no help! Every drop of water had to be pumped, and every drop of hot water had to be heated on the kitchen stove. Cooking three meals a day, washing, ironing, and mending, making most of our clothes, lugging home meat and groceries, and keeping her temper all day long, as she worked in the room in which we played!

Life was hard in those days, but there was probably less complaining than we hear today. A woman without a maid imagines she will be supremely happy when her husband's income permits her to have a helper. But leisure releases new thoughts, new worries, new longings. I don't see that we can do anything about it.

That's the sort of thinking that comes from going off by yourself for a couple of hours at noon. If I complicated my life with golf or tennis, I should have had to bolt my lunch quickly to clear my desk for an early race to the country club.

By avoiding distractions, I can eat and work at a pleasant pace. Breakfast, luncheon and dinner are delightful occasions, if adequate time is taken for digestion, smoking, and conversation. The golfers, baseball fans, bridge players, and habitues of luncheon clubs, are so busy crowding their work into the fewest possible hours, that they get no pleasure out of it, and slight pleasure out of their recreation, because that, too, is done under pressure. Any recreation is good, if there is time for it. But if it ruins the rest of the day, I don't see much sense in it.

It seems to me that the man who can



THE SIREN SCREAMS

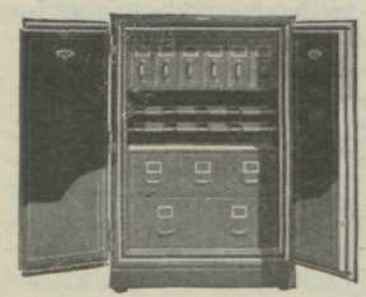
. . Does it make you nervous ?

THE moaning, uncanny scream of the fire siren late at night. It strikes terror to the hearts of many business men. Something is burning. In their mind's eye comes the vision of fire, smoke and water, destroying their work of years — their livelihood. Are you one of these men?

Such fear is unnecessary and uncalled for. Keep your vital records — the heart of any business — safe and secure in Diebold Fire Resistive Safes and all cause for worry is removed.

They are designed as to size, style and interior equipment to meet the needs of any business. In addition, their attractive Duco finish beautifies any office. Diebold Safes carry the label of The Underwriters' Laboratories.

You owe it to your business to know the details. Write today.



Let us measure your fire risk and recommend the protection necessary.

DIEBOLD SAFE & LOCK CO., Canton, O.

Represented in leading cities in U. S. A. and Canada

DIEBOLD SAFE
ASK YOUR BANKER

When writing to Diebold Safe & Lock Co. *please mention Nation's Business*

take a half hour for breakfast, an hour and a half for lunch, and an equal time for dinner, has found the makings of a pleasant existence. Let him also spend enough time at his desk, so that he may do his job well. Let him prize the idle moments at his desk, when he has time to write a personal letter, visit with a partner, or read a magazine.

Many of us could do our work in fewer hours, but what would be the object? I doubt if we could do our work as well, and I am confident we would not enjoy it as much.

The trouble with play is that too much formality has crept into it. We put so much energy into planning a good time that we are exhausted before it begins. We ought to have a little fun every day, instead of arranging for a bust occasionally. Saving up for a good time is like trying to recall yesterday's sunshine.

◆

MY plea is for moderation. Everybody has to eat, sleep, and work. All are essential for existence, so why not get the most out of them? Instead of robbing ourselves of adequate time for eating, sleeping, and working why not cut out some doubtful forms of play?

Only recently did I discover that to enjoy the occasional luxury of ten hours in bed in mid-week, I merely had to cut out two hours of evening boredom. Previously, I imagined the only way to catch up on sleep was to be late for work.

I observe men racing to their desks a half hour late in the morning, working furiously and distractedly until noon, bolting a sandwich, and rushing to the golf course at three o'clock. Then they tear home to dress for dinner, probably followed by bridge until midnight. This system produces the sensation of a full life. Something is doing every minute, but what does it amount to? Nothing has been thoroughly tasted?

When I am in Europe I get most of my pleasure from the leisure that permits me to loaf over coffee and cigarets, and to walk slowly enough to enjoy the sights. If that is the chief pleasure of Europe, I have said to myself, why can't I capture the mood when I am at home? I'll confess it's easier to propose it than to do it. But it can be done.

Your golf score must be sacrificed, but with the added time gained for lunch you acquire a new group of companions, whose conversation is often better than anything heard on the links. You stay at your desk until five, polishing up your work so that you can take some pride in it. You are home



The Weston Model ONE—the Pioneer and still a scientific standard in the art of electrical measurement.

The Portland or Barberini Vase, found in a sarcophagus in Rome. Attributed to the first century B.C. One of the most celebrated of the world's art treasures.

What Worth ORIGINALS?

ONLY a vase, wantonly broken by profane hands, the lone survivor of an ancient craftsmanship—how priceless in the eyes of the world of art!

For here, in this bit of exquisite pottery, lives and breathes the spirit of an age when man's handicraft was enriched by ennobling ideals, as yet untainted with commercial greed.

And as the world grows older it yearns again to express the glory of true art—to stem the tide of hastily made products which all but atrophy our sense of genuine worth and our appreciation of quality and real utility.

The cheap and artless imitations of the masters will never command a following. Lacking the inspired touch of genius they will ever fail to arouse the creative instinct which only originals can summon into action. As in art, so in the realm of science and industry. In an age of vast production great institutions and business leaders devote their resources and their skill to the end that their works may advance the cause of human service.

Quality has always been the companion of progress. And today, more than ever before in the world's history, the very magnitude of our corporate and personal ambitions demands the finest and best of everything.

Even in their commercial haste, business institutions will wait for the best, knowing full well that nothing so effectually retards progress as poor products, whether they buy them or make them. And craftsmanship takes time.

What worth, originals? Whether vases or instruments—the standards of art or of science—no money can measure their intrinsic value.

Weston
PIONEERS SINCE 1888
INSTRUMENTS

WESTON ELECTRICAL INSTRUMENT CORPORATION
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before six, in time for a walk with the dogs before dinner.

After dinner you start a cigar, and if it's still daylight, you may take another stroll. If you're in the country in summer, you'll certainly do this. Then you'll read, talk, gossip, hear the radio, or maybe play a rubber of bridge, until bedtime, which will surely be before midnight.

At first the life may seem dull. But in a few months your nerves will be quieted, and you'll begin to enjoy sunsets, and elm trees, and birds' songs, and peaches and cream, and flowers, and poetry, and all that kind of nonsense.

◆

YOUNG men often ask for the title of a readable book that will give them the fundamentals of economics. I strongly recommend that they try "The Romance of Trade,"[1] written by A W. Kirkaldy, an English professor.

Professor Kirkaldy writes for the comprehension of the English workingman, and thereby succeeds in being intelligible to others, such as bankers and manufacturers.

The chief theme, admirably presented, is that material success in this age is achieved through cooperation. No group can call itself the most important. Not even the farmer is self-sufficient. The farmer who depended entirely on himself might make an existence, but little else. Through the assistance of the inventor, the metallurgist, the chemist, and the physicist, the modern farmer is able to produce a maximum crop, and win a better living for himself.

Working under simple conditions the ordinary employer and the ordinary workman produced a minimum output. Aided by capital, ingenious tools, scientific investigation, and all the accumulated knowledge of their special industry, they obtain a maximum output. That result is not due to the organizer, or to the operative, or to the inventor, but to the cooperative effort of all.

The reader of this book will learn how the world groped in its effort to discover fundamental economic principles, and how some unsound theories such as the "Iron law of wages" led to despair. This "law" was upset by the reasoning of an American economist, Francis Walker, who showed that wages are controlled by production, and are therefore unlimited.

The doctrine of Malthus, who contended that population inevitably increased faster than the food supply, also caused men to fear the future, but that law was also proved unsound. Karl Marx and Henry George studied the economic drift, and each offered a panacea, but their conclusions have also been upset.

Economics is not a closed science. Some laws have stood the test of experience; others have proved false. In recent years, American economists have suggested new theories, which if sound, will mean greater prosperity for all.

"The Romance of Trade" was first published in 1923. The current edition has been revised.

◆

IN A foreword to "John D., a Portrait in Oils,"[2] the author says:

"John D. Rockefeller and his Standard Oil Trust have produced a literature and a litigation of their own. In this overwhelming mass of material, Rockefeller the Man is but a shadowy myth. This study seeks chiefly to illumine a rare and astonishing personality. It includes, therefore, only such portions of our subject's long and serried business career as seem essential to our purpose."

Measured by its pretensions the book keeps faith with the reader. Measured by what the reader would like to know about John D., it fails lamentably. New anecdotal material is sparce and its source is not revealed, thus robbing it of authenticity. The book is an example of good writing and bright imagination, but it lacks substance.

In the center of the cover a bright dime is glued. Unless I am mistaken in my estimate of John D., he would regard this as wanton waste. And so it is. One might forgive a bartender for paving his floor with silver dollars, but one cannot so readily condone the bad taste of a publisher.

The chapter dealing with the Rockefeller benefaction reveals the basic test by which each philanthropy is judged. John D. holds that the sound way to help people is to reduce disease and ignorance. He contributes to health and education. Research underlies everything. Never before has any man distributed money so wisely, so impersonally.

Winkler estimates that at one time the Rockefeller fortune was nearer two billion than one billion. This stupendous sum was collected by a man of brilliant mind and iron will who concentrated on a single objective—the de-

---

[1] **Romance of Trade**, by A. W. Kirkaldy. E. P. Dutton & Company, New York $2.00

[2] **John D., a Portrait in Oils**, by John K. Winkler. The Vanguard Press, New York. $2.25.





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In 1924 Ferguson Engineers designed and built the first unit of the great Laughlin plant in Newell, West Virginia. The production program was based on ideas entirely new to an industry that had seen little change for centuries. New economies and new buildings permitted highest manufacturing efficiency.

This year the Homer Laughlin China Company has again engaged Ferguson Engineers to design and build an immense addition 1300 feet in length. When completed, the entire plant will have over 1,000,000 square feet of floor space under one roof . . . with four times the output of the original plant.

Ferguson Engineers possess a broad experience that should be invaluable to you in working out your plant engineering and construction problems. A phone call, wire or letter will bring a Ferguson executive to your office at some time convenient to you.

If you are interested in building and building problems, the Ferguson "Cross Section" . . . published monthly,—should be of real interest to you. This month, an article on modern methods in buying. A request on your letterhead will bring this publication to you gratis.

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sire to become the richest man in the world.

A typical John D. day, in his ninetieth year:

Rises at 7, bathes and dresses.

Breakfast at 8, in the company of all guests of his house.

After breakfast he takes the first of five daily naps. Then he reads the newspapers.

He changes clothes and goes to the golf course at 10, playing six holes, taking a trifle over 30 strokes.

At noon he changes to a business suit, and at 1:30 is ready for luncheon.

After luncheon he rests, and then attends to the business of his estate, reads reports, telephones to his son.

At 3:30 he goes motoring for two hours, traveling at a minimum speed of 35 miles an hour.

After the tour there may be a conference with his secretary, a rest, and then he dresses for dinner, always wearing formal clothes.

Dinner is served at 7:30, and is usually followed by a game of Numerica.

At 10:30 his valet reminds him of bed, and by 11:00 he is asleep.

♦

THE advertisement that led me to buy "Wall Street and Washington"[3], by Joseph Stagg Lawrence of Princeton University, said:

"A new factor confronts the investor. He has been content in the past to examine securities on the basis of present earning power, future earning capacity, and the prospects of appreciation. He has never contemplated the deliberate injection of the Federal Reserve System into the value-making process. It is a distressing fact. Our provincial busy bodies have viewed the recent growth of stock values with alarm, and in true Calvinistic fashion are doing something about it. The investor and the taxpayer are footing the bill."

So much time must elapse between the day this review is written and its publication that I intend to play safe, and avoid taking sides in the controversy over the policies of the Federal Reserve Board. Some day one side will be proved right. Lawrence assumes the risk of being proved dead wrong. He is outspoken in his criticism of the Reserve System, not only of its interpretation of events, but of the use and "abuse" of its power. Neither H. L. Mencken nor Bernard Shaw ever attacked more vigorously or bitingly. Even a layman, with a purely academic

[3] Wall Street and Washington, by Joseph Stagg Lawrence. Princeton University Press. $5.

interest in finance, will enjoy this book because of the brilliant writing.

Lawrence charges that the Federal Reserve authorities have caused paper losses to bondholders of two billions, that taxpayers have suffered other huge losses, and that only the robust health of general business has saved the nation from hard times. He alleges that the authorities grossly abused their statutory power by resorting to newspaper propaganda to effect their ends.

Instead of permitting the Reserve Board to attempt to curtail brokers' loans, Lawrence suggests that the Federal Reserve Act be amended to permit the rediscount of bills secured by stock market collateral. So dubious is he, however, of the prospect of reform either through Congress or within the management of the system, that he proposes that Wall Street patronize only banks outside the Federal Reserve.

"Wall Street has ample financial strength to be independent of a central bank which has demonstrated its unenlightened and militant provincialism," he says. "The state of New York will charter institutions to provide for the banking needs of the financial community. Although the provinces dominate in politics there is no reason why that dominion should extend into the field of finance."

Whatever may be the final conclusion of the present cycle of business and finance, I anticipate a gain. Banking policies and banking rules are being dragged out into the open, and are being discussed on street corners and in shoe-shining parlors. The layman is becoming conscious of such terms as gold reserve, credit supply, brokers' loans, open-market operations, discountable paper, and other words which in the past have been so much Greek.

In all my reading I have never known Wall Street to enjoy the benefit of an advocate so resourceful, articulate, and vigorous as Professor Lawrence. The battle between the Street and the Plains is not new, he says, but goes back to the earliest days of the republic.

It will probably continue because the righteous legislators of the South and the West know that an attack on the Street is perfectly safe. No votes are lost in the home bailiwick. Speculation and Wall Street, what delightful morsels for a politician!

♦

"AMERICA CHALLENGED"[1] is a solemn recital of what has happened to the American farmer while our country has

[1] America Challenged, by Lewis F. Carr. The Macmillan Company. $3.50

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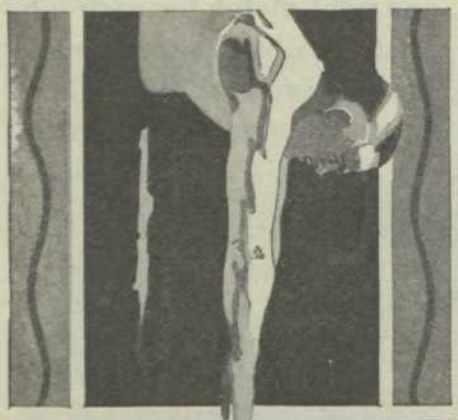
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been changing from an agricultural to an industrial nation.

The farmer today finds himself unable to make a living equal to the American standard. Mr. Carr tells us that there are millions of southern cotton planters, operating one-horse farms, whose wages are from 25 to 50 cents a day. A dollar a day is a good wage for a farmer, according to Mr. Carr's figuring.

The picture drawn by this writer is ugly, gloomy, depressing. The farmer buys supplies from industries protected by the tariff and ships his produce on railroads whose rates are fixed at an adequate price by the Government. But the majority of his own production must be sold at a price that is controlled by the world supply.

All this is an old story to those who have followed the argument for farm relief of which Mr. Carr is an able advocate.

Running through his book, however, is a streak of sentimentality, and his argument is weakened by much confused thinking.

◆

I HAVE never been a farmer, in the strict sense, but for the past eight years I have owned, and, in the summer season, have lived on a small farm. I have raised vegetables and chickens, pastured sheep and cows, presided at the birth of calves, grafted apple trees, and driven a tractor. I have drunk fresh milk, eaten strawberries with rich cream, and devoured as many as eight ears of Golden Bantam corn at one sitting.

I have lived in a district where farmers could get city jobs at city wages for the asking, and didn't take them; and where good farms went to weeds because nobody cared to farm them, free of rent.

I have observed more downright loafing in the country than I ever saw in the city; and I have known farmers who managed to live comfortably, despite laziness and shiftlessness, and who would starve in the city, if they tried to collect wages for so little work done.

Furthermore, I have speculated, in a modest way, in cotton, and have noted that the acreage that is planted usually insures a ruinous price for the crop.

Yet Mr. Carr offers no suggestion for the reduction of the acreage that is planted to crops that sell below the cost of production, year after year. He offers no plan to draw men away from the land, where the wage by his estimate is as low as 25 cents a day, to the cities, where the wage is $4 and $5 a day. With farm relief in effect and farm profits on a par with industrial profits, he ironically proposes that city people can take up farming, if they think the farmer has too much of a good thing. Why can't the farmer take up industrial employment?

Mr. Carr says the restrictive immigration laws were passed to protect American industrial labor. Do they not protect the farmer equally by producing a shortage of labor in the industrial centers, and thus offering an opportunity for surplus farm labor to emigrate to industrial centers?

◆

SOMETHING I can never get through my head is why an American will stay on a job paying 25 cents a day when he can migrate a hundred miles and make $4 a day. If Europeans, illiterate and unable to speak a word of English, have the energy and ambition and courage to leave their farms and travel 3,000 miles to an unknown land, why do not those in our own country who are barely existing move to a more congenial and prosperous environment?

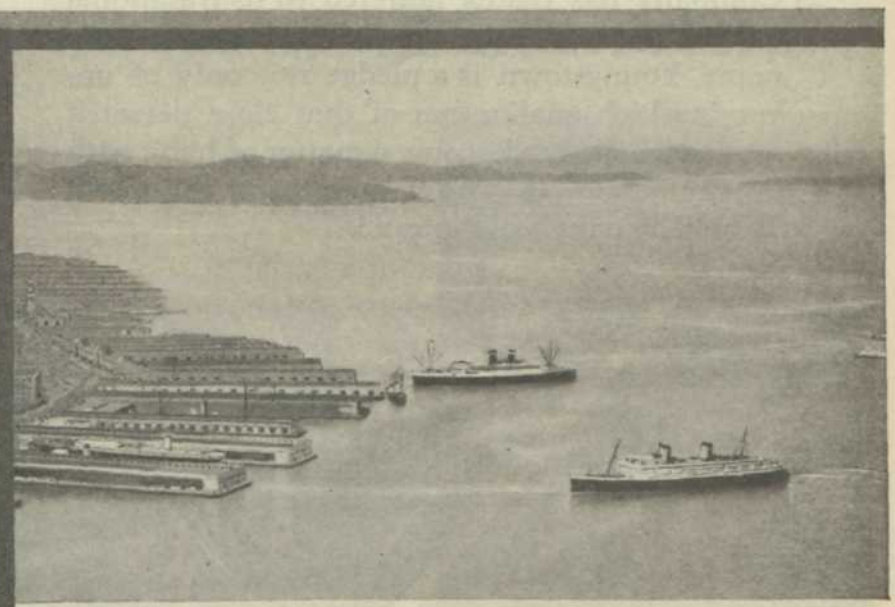
On the Business Bookshelf

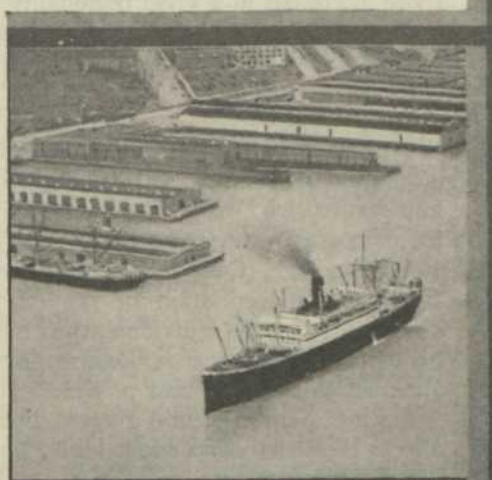
BEFORE the day of automobiles and airplanes, railroads were pre-eminent as the means of transportation. Today, despite the inroads of the automobile and the speed of the airplane, the railroad still proves its usefulness. One hundred years ago, transportation was either by water or by wagon or ox-cart on roads that now would be called impassable.

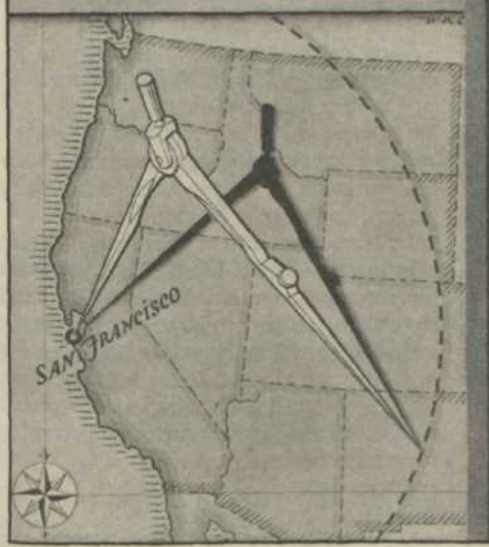
Then came the railroad, making possible the settlement of the West and permitting travelers to cross the continent with at that time incredible swiftness and ease. Grenville M. Dodge[1] played an important part in railway expansion west of the Mississippi. His first independent survey was made across Iowa, in 1853, for the Mississippi and

[1] Trails, Rails and War: The Life of General G. M. Dodge, by J. R. Perkins. The Bobbs-Merrill Company, Indianapolis.

Industry selects the city with great natural advantages







Markets are most quickly and cheaply served from the center. Present-day competition places a high premium on distributing efficiency. Thus San Francisco, the great central city of the Pacific Coast, has become headquarters for the leading financial, commercial and manufacturing interests serving this territory.

11,000,000 people living west of the Rockies can be most quickly and cheaply served from San Francisco. In its adjacent market, within an hour's radius of downtown, are 1,600,000 consumers of greater than average per capita wealth.

Its harbor, ranking second in the United States in value of water borne tonnage, is the natural gateway to the lands bordering the Pacific. These lands represent a market of 900,000,000 people who are rapidly developing modern wants and demanding modern products. The Pacific area will be the scene of the world's most dramatic commercial growth during the next few years.

Climatically San Francisco is an ideal manufacturing location. The average mean temperature varies but 6°, summer and winter. No oppressive heat to slow summer production—the average summer temperature is 59°. No snow loads. No frozen pipes. Labor has opportunity to exercise out-of-doors the year around. It is in harmony with its job. And the dollar has greater commodity purchasing power in San Francisco than in any other large city.

Business capital of the west, San Francisco's growth, amazing as it has been, is still in its early stages. The basic facts of this city's claim to your careful investigation as a site for a branch factory, a distributing organization or a western sales headquarters are presented in a new book which will be sent free to business executives.

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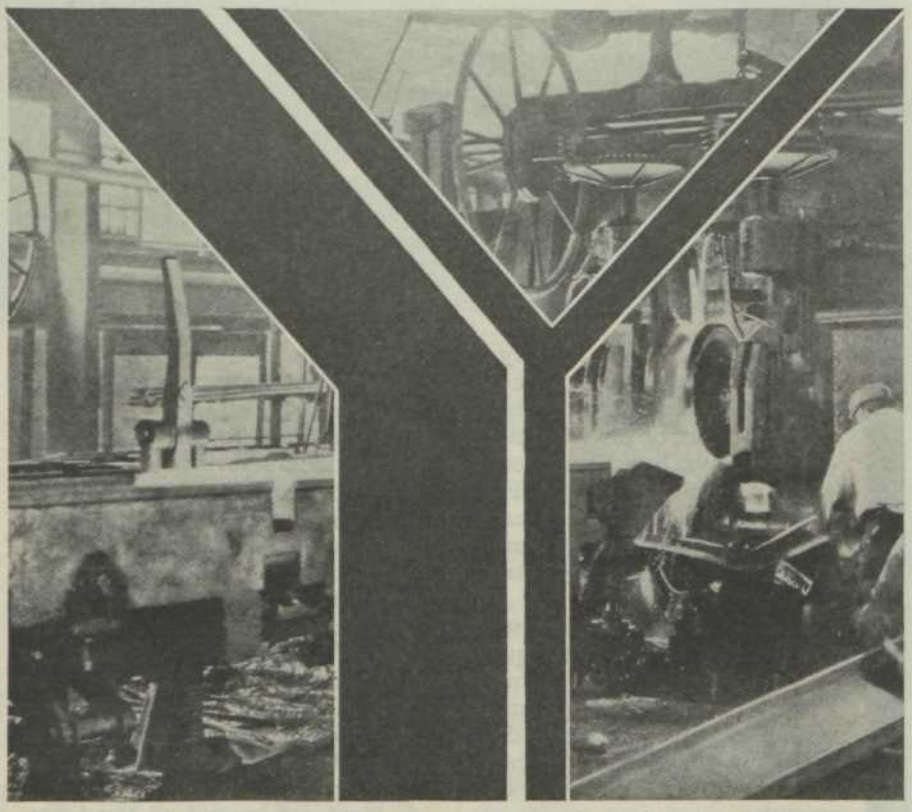
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Missouri River Railroad. His railway work culminated 33 years later in a final active survey for the Mexican and Southern, of which General Grant was then president.

His chief survey was for the Union Pacific, although rivaling it in length, if not in obstacles encountered, was the one he made for the Texas and Pacific along the line of the thirty-second parallel. A third survey was that from the head of Salt Lake to Puget Sound for the line that gave the Union Pacific its first tidewater outlet.

General Dodge was active in the Civil War. We can heartily recommend his biography, "Trails, Rails and War," to those interested in a vivid personality, and the engineering problems of the Civil War and western railroad building.

♦

WITH the belief that embezzlement is a question of economic and sociological importance, Mr. Kehr has published his monograph, "A Dead Line."[2] Obviously enough, the penalties for the fraudulent appropriation of property are felt first by the individual, then by his family and his friends. Less readily apparent is the high cost of these offenses, not only in mental distress, but also in the strictest economic sense. As Mr. Kehr points out,

> Large expenditures must be made for investigations, audits, tracing offenders from city to city and from country to country, for transportation of offenders after arrest, and for keeping them in jail until their trial in court; for their transportation to prisons, and keeping them in prisons.
>
> Embezzlement affects practically all kinds of insurance—surety, life, accident, and even fire insurance, for buildings may be, and have been, burned to destroy evidence of embezzlement. Life insurance and accident insurance are affected through the suicides of offenders, through murders connected with such cases, and through deaths coming from physical breakdown caused by worry and remorse.

Consideration should also be given to the losses suffered through the disturbance of business when embezzlement is discovered, and to the costs of prosecution—items which make a substantial addition to public taxation.

As for the human loss, families may become dependent through the act of one person, and the character and morals of persons directly or indirectly involved in the irregularity may be injured. Mental depression and the sense of disgrace are difficult to appraise as public liabilities, but the item and de-

[2] A Dead Line, by Cyrus Kehr. Published by the author, Washington, 75 cents.

tail provided by Mr. Kehr argue a larger interest in reducing the number and degree of embezzlements. The warning and instruction of persons exposed to this temptation are helpful ways, Mr. Kehr thinks, to prevent breaches of trust. A revealing measure of the author's belief in the employer's responsibility for the morale of the employe is in his quotation from Ezekiel, "He shall die; because thou hath not given him warning."

◆

WE often wonder why graduates of schools of business administration write books on business while the business man is generally silent on the subject, as far as the written word is concerned.

Mr. Koch, a graduate of the Harvard Graduate School of Business Administration, is well qualified to write a book[3] on retail management but for all that he doesn't write as a retailer. He has the facts and he expresses them lucidly save in one or two instances, as witness, "To say the least, every such statement (that sales need not bring profits) is an indication that the eye of the commercial marksman may have left the bull's eye of the business target when the trigger of sale was pulled."

Generally speaking, the tone of the book is academic, perhaps inevitably so. Certainly there is no trace of the human appeal and human interest that a retailer writing of his own business could so well impart.

◆

THERE are many who think that the remedy for any situation lies in a new law. Such persons usually are not at all acquainted with our common law, which figures so frequently in the courts. It is this common law which Mr. Marshall[4] expounds in his book of common legal principles. It is an interesting reference book.

◆

THE second annual edition of "Keane's Manual of Investment Trusts"[5] presents statements of 391 companies operating 414 investment trusts. This is more than double the number of a year ago. Several valuable new features have been added in the second edition. These

[3] **Methods of Retail Management**, by William E. Koch. McGraw-Hill Book Company, New York, 1929. $3.

[4] **Common Legal Principles**, by Francis W. Marshall. Funk and Wagnalls Company, New York, 1929. Two volumes, $10.

[5] **Keane's Manual of Investment Trusts** by C. P. Keane. Financial Publishing Company, Boston. $20.

"At first, I thought our plant was too small for tructors"

LIKE many other managers, he had readily admitted the advantage of Tructors in large plants but had contended that *his* plant was too small to make electric trucking practical or economical.

Main manufacturing activities of the company were carried on in a small four-story building. Considerable cross handling was necessary and work had to be carried to different floors. Materials in process and numerous parts from the stock room were handled on hand trucks. The loads handled were often comparatively small.

And though still skeptical, the manager acted on the recommendation of his plant superintendent and approved the use of Elwell-Parker Tructors.

Just one month of Elwell-Parker performance was sufficient to convince him of the greater economy and efficiency of the Elwell-Parker method. E-P Tructors were routed through the plant on a regular time schedule. The problem of handling small parts in small quantities was overcome by using a system of skid boxes and tote pans, so designed that, on every trip, the truck carried a near-capacity load, made up of a number of different parts and materials.

Each Tructor (one for each 25,000 sq. ft. of floor space) not only transported a greater tonnage than several hand trucks, but moved at three times the speed, and was therefore able to make more





trips than the manager had anticipated. Counting reduced labor costs, increased efficiency and greater speed, *the ratio of savings over the old method was approximately 9 to 1.* A simple calculation showed that the entire installation would return its cost in less than a year.

If you have hesitated to call an Elwell-Parker Engineer because of the size of your plant, don't delay longer. *Savings made by the Elwell-Parker Tructor system in small plants, when compared Tructor by Tructor, is equal in most cases to the savings made in larger plants.*

Without obligation, one of our Engineers will be glad to make a survey of your situation. Call him today, or write direct to the Elwell-Parker factory.

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include a classified list of securities owned, a list of houses which have offered investment trust securities, a ready reference list of investment trust companies showing addresses and names of securities, a list of banks whose directors or officers have investment trust connections, and quotations of investment trust securities for the past two years.

Part I is devoted to statements of investment trusts. Part II, in addition to the new features, contains a brief discussion of the theory of investment trusts, a section on investment trust accounting, a resume of state investment trust legislation, and a selected bibliography.

While much is to be desired in the matter of statements, particularly in regard to investment trust holdings, investment powers, and earning statements for many of the companies, the manual has compiled the available information and set it forth in a most satisfactory manner.

The manual should receive a place on the reference bookshelf beside Poor's and Moody's Manuals.—C. U.

♦

STATES have more and more come into the insurance business, either in competition with private companies or to the exclusion of private companies in the lines carried by the states. They have gone into the business to protect themselves and smaller political units against losses in public property, in funds by official bonding and to provide retirement bonds. They have also provided insurance readily obtainable from private companies such as workmen's compensation, hail, and life insurance.

Last February in NATION'S BUSINESS Mr. McCahan wrote "The State Goes into Insurance," explaining why states enter insurance rather than some other business and how unbusinesslike they are in conducting their insurance departments once they start insuring. For those who want detailed information on state insurance we recommend "State Insurance in the United States."[6]

While he was gathering information for his book, Mr. McCahan visited 37 states and personally obtained his facts from state officials and other sources.

He discusses various phases of workmen's compensation funds, pension funds, hail insurance, bank deposit guaranties, public property insurance, and

[6] **State Insurance in the United States,** by David McCahan. University of Pennsylvania Press, Philadelphia, 1929. $3.50.

some of the less common forms of state insurance.

Mr. McCahan takes a middle ground between the misinformed or poorly informed state-insurance advocates and those opposing such insurance for selfish reasons. Bitter quarrels have often arisen when this subject has been discussed, he says, because neither side is entirely fair and frank.

Recent Books Received

Federal Tax Practice, by Robert H. Montgomery. The Ronald Press, New York, 1929. $10.

Packinghouse Accounting, prepared by the committee on accounting of the Institute of American Meat Packers. Revised and edited by Howard C. Greer. University of Chicago Press, Chicago, 1929. $4.

What Every One Should Know About Eyes, by F. Park Lewis. Funk & Wagnalls Company, New York and London, 1928. 30 cents.

Diabetes And Its Treatment, by Frederick M. Allen. Funk & Wagnalls Company, New York and London, 1929. 30 cents.

Both from the National Health Series of the National Health Council. Interesting, readable, and informative.

The Control and Reform of the Bank of England, by Roy Hopkins. London General Press, 8 Bouverie St., London, E. C. 4. 2/–.

A pamphlet discussing reform for the Bank of England.

Central Banks, by Sir Ernest Harvey. London General Press, 8 Bouverie St., London, E. C. 4., 2/–.

List of the Books, Bulletins, Journal Contributions, and Patents By Members of Mellon Institute of Industrial Research During The Calendar Year 1928, by Lois Heaton. Mellon Institute of Industrial Research, Pittsburgh, 1929.

Renting Offices, by William F. Davidson. National Association of Building Owners and Managers, Chicago, 1928.

Business and Professional Speaking, by William Phillips Sanford and Willard Hayes Yeager. A. W. Shaw Company, Chicago, 1929. Three volumes.

Information on planning and collecting material for talks.

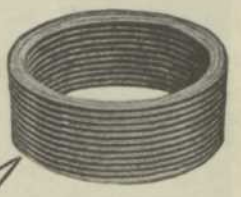
The Morris Plan of Industrial Banking, by Peter W. Herzog. A. W. Shaw Company, Chicago, 1928.

Accounting and Finance, by Leon E. Bromwell. John Wiley & Sons, Inc. New York, 1929. $3.50.

To Market, by Harvey J. Skonce. The Stratford Company, Publishers, Boston. 1928. $2.

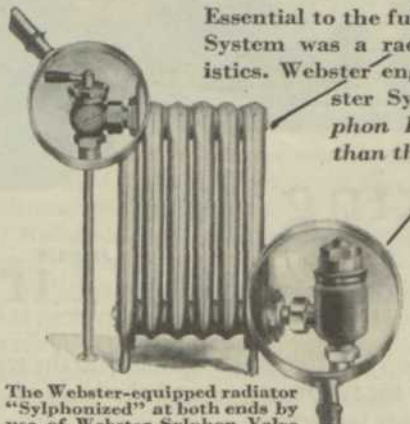


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GOODYEAR

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A Congress of World Business

(*Continued from page 46*)

to simplify their business transactions.

Easy, is it not? Yes, it is not!

Those who have attended meetings of the United States Chamber understand how easy it is for men of different industries, different sections, to agree on problems of chain stores, or calendar reform, or price maintenance.

Bring together men from 46 countries, speaking different languages, brought up through centuries of differing traditions and customs; add to this the suspicion and distrust fomented by politicians through so-called nationalism, and you will get some picture of the ease with which the business men at Amsterdam met world business problems.

For example, the word "ventures" was used in a resolution put forward by the American delegation. The word was translated and came out "speculations."

The word "publishing" went into the French from the English and came back into the English as "bookselling," a very different thing.

It's all important

ONE seeks, in reporting such a meeting, the outstanding result. This is difficult. If, at the conclusion of the Rome meeting in 1923, someone had asked the result, who could have said that from it would grow the Dawes' Plan and the Young Plan? Yet, such was the case.

If someone had asked, at the conclusion of the Brussels meeting, in 1925, the major result, it would have been difficult to foresee that from that conference would come a stabilization of national currencies.

I hazard a guess. From the Amsterdam meeting may grow a wider understanding of the advantage of private operation of business as opposed to government operation.

For nearly two years national committees of the International Chamber have studied the comparative merits of private and government operation. They submitted their reports to Professor Borgatta, of Milan, who presented a 35,000 word report to the International Chamber at Amsterdam. This had been summarized and, in a resolution presented to the Congress, the International Chamber "expressed its firm conviction that private initiative and private operation of enterprise constitute the most effective instrument to insure the progress of industry and to increase general prosperity."

When this resolution came up, Julius H. Barnes, of New York, vice chairman of the American delegation, made a most important address. He described America's advanced living standards, its widely distributed prosperity, its increased productivity, and gave the underlying philosophy which had led to this desirable condition.

A capacity attendance

THE large hall was filled to overflowing. The audience, to a man, was tensely attentive. As Mr. Barnes spoke in English his words were translated into French and German through earphones attached to the seats.

So impressive was the picture of the American philosophy that the Committee on Public and Private Enterprises requested that the following statement outlining the significant results of modern industry in American experience be added to the resolution:

> Modern industry by large capital ventures in machine and power equipment directly increases the productivity of the worker.
>
> Rising wages and continuous employment create widespread buying power.
>
> Enlarged buying power supports the market for large scale production and for a great variety of specialties and services, while reasonable leisure facilitates new use and enjoyment of more products and services.
>
> Advancing living standards, thus stimulated, tend to develop margins of individual savings, by which widespread ownership of industry may be established through investment workers, by customer consumers, and by public participation.

Five speakers from different countries, following Mr. Barnes, confirmed the baleful effect of government operation.

Dr. Adolphe Johr of Zurich, Switzerland, pointed out that the greatest obstacle to government operation is the bureaucratic superposition of authorities. The authorities at the head of public utilities in a Swiss town, he said, are:

1. The manager of the enterprise.
2. A member of the executive authority that acts as an organ of immediate control.
3. The municipal enterprise committee, in an advisory capacity.
4. The municipal board, as the responsible body.
5. The municipal parliament, as legislative authority.
6. A special parliamentary commission, as authority in matters of a preparatory nature.
7. The people, supreme municipal authority.
8. The government of the canton and subsidiary bodies, as a supervising authority and court of appeal.

There was some opposition in the preliminary discussions of the Young Plan to the Bank of International Settlements.

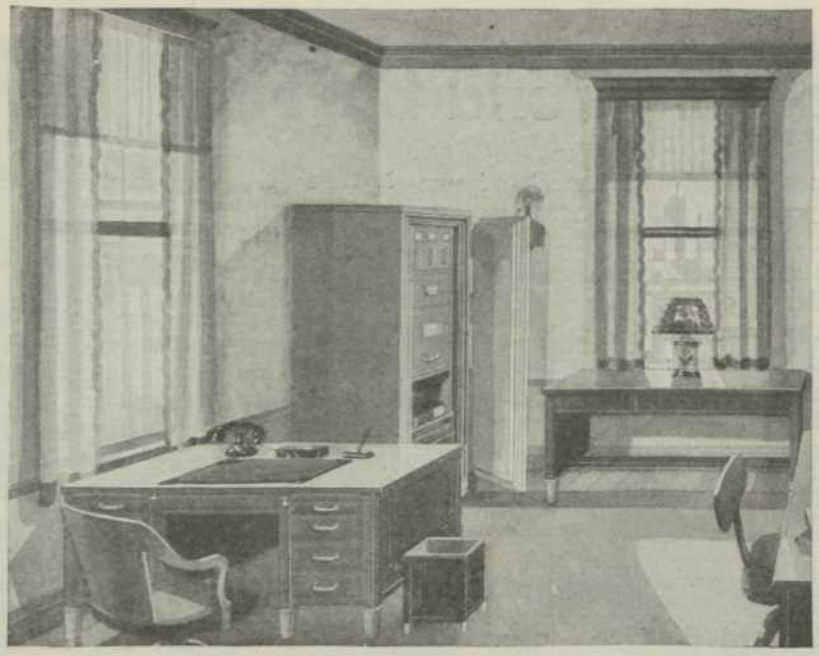
Professor Gustav Cassel, of Sweden, strongly urged that no resolution on the subject be introduced. At a later plenary session, however, the International Chamber approved "the step taken in intrusting to recognized economic experts the greatest economic problem of the moment," adding that it should "view with great satisfaction the intention of experts to remove the reparations problem from the arena of political supervision and to find economic methods of arriving at a solution." It expressed the hope that the plan would "receive prompt and favorable consideration, and that, as a result, a final and complete settlement of the problem may be reached."

Through the efforts of the American delegation another important resolution was adopted. It declares that one of the most cherished ideals of business men of the world has always been the preservation of permanent peace and the settlement of all differences between nations by means of conciliation and arbitration.

Peace treaties endorsed

FINALLY the International Chamber "reiterated its hearty endorsement of treaties already concluded or contemplated which solemnly provide for the abandonment of war as an instrument of national policy," and for these reasons the chamber "welcomed with enthusiasm the new guarantees of peace recently given to the world by the Briand-Kellogg pact."

Also important was the resolution on commercial policy and trade barriers. Although the French, Belgian, Polish and Czechoslovak delegations attempted to introduce a reference to the American tariff, the American, British and German delegations presented a solid front and all public discussion of what, after all, is purely a matter of American



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concern was defeated. At the private meetings, M. Serruys, on behalf of the French delegation, raised the specter of a United States of Europe and tried to convince the American delegation of the danger of bringing about a combination that might stand against the United States and the British Empire, and even lead to the industrial unification of Europe.

An American remarked dryly that the United States might welcome such a demonstration of the ability of European nations to get together. Robert E. Olds and Willis H. Booth explained in detail how an American tariff law is made and urged European nations to withhold comment until Congress had finally dealt with the subject.

A unanimous adoption

FINALLY the plenary session adopted the Commercial Policy Resolution without a dissenting voice. It appealed to all governments to ratify the recent convention on the abolition of import and export restrictions; recognized the value of the work of the League of Nations in connection with the most favored nation clause; urged adoption of a convention on the treatment of foreigners; condemned indirect protection; resolved to inquire into the relative methods of *ad valorem* and specific customs duties; placed itself on record in favor of tariff stability; favored safeguards against the application of arbitrary measures in veterinary and phytopathological matters, and demanded that the work of the League of Nations' experts on uniform customs nomenclature be pushed to its conclusion.

A strong Chinese delegation, headed by Chang Kia Ngau, the Governor of the Bank of China, which had come to raise the question of extraterritoriality and unequal treaties, disclaimed any intention of introducing a political subject but suggested that if the aims of the International Chamber were peace and the development of world trade, they were entitled to ask a resolution condemning the unequal treaties on the ground that it was unfair to exempt foreign traders from taxes that the Chinese paid.

President Pirelli ruled that any resolution dealing with a political subject would not be introduced.

After much discussion the Chinese delegation said it was willing to join the International Chamber as a National Committee on a footing of equality with other nations and to cooperate in every way possible.

The work of the International Cham-



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In this noisy age, people more and more are demanding quiet in their homes. And the manufacturers of electrical household appliances who are getting the lion's share of the public's purchases are those whose devices operate most noiselessly. If you would call the roll you would find that a surprising number of them—vacuum cleaners, phonographs, washing machines, dishwashers, oil burners, home movie projectors and organs—are powered by Robbins & Myers units. Operated day in and day out with little or no attention, it is only the exquisite precision of their construction which makes it possible for these R & M units to run smoothly and quietly for years. Indeed, many of our oldest and most successful customers are frank to admit that no small part of the prestige of their product has been won by the time-defying quietness of its R & M power plant.

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Blowers	Driers	Office Appliances	Ticket Selling Machines
Brick Machinery	Floor Surfacers	Organ Blowers	Vacuum Cleaners
Churns	Folding Machines	Mailing Machines	Ventilating Fans
Cloth Cutters	Heaters	Machine Tools	Unit Heaters
Coffee Mills	Heat Regulators	Meat Choppers	Washing Machines
Coin Counters	Hoists	Milking Machines	Wrapping Machines

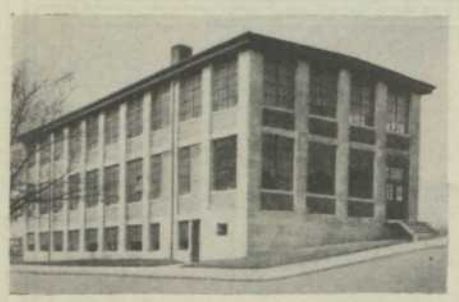
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—J. S. STEWART, President
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OVER SIXTY-FIVE YEARS IN BUSINESS

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ber is divided into four main groups, the Finance Group, the Industry and Trade Group, the Legal Group and the Transport and Communications Group. In all, some 40 different agreements were reached under about 25 heads.

The Finance Group passed resolutions sponsored by the American delegation dealing with double taxation and recommending uniform principles. An annex to this resolution lays down uniform principles limiting the tax jurisdiction of governments in a way to obviate double taxation of income and property. These deal with the general limitations of fiscal sovereignty, income taxable at the state of domicile, income taxable at the source, and death duties.

Uniform regulations for commercial documentary credits were formally approved by the Congress. Without appealing to governments to pass uniform legislation governing the matter, the International Chamber will request its national committees to ask the banking and commercial organizations of their respective countries to apply these regulations voluntarily and to use their influence to obtain their application in all countries.

As certain national delegations had been unable to agree definitely on the proposals put forward by the Committee on Letter of Credit Forgeries and the Authenticity of Orders to Pay, the whole matter was referred back to the Council for further consideration.

To study international money

THE Congress also decided that the International Chamber should pursue its inquiries into international movements of capital to ascertain the most suitable ways to increase and facilitate the circulation of international securities and direct international investments into productive channels with a view to opening up new countries or advancing those that have not yet reached their full development.

Resolutions demanding a reduction in the number of international exhibitions and urging that international industrial statistics be made comparable and receive as much publicity as possible were unanimousiy adopted. These resolutions were introduced by the Industry and Trade Group which also introduced the subjects of Commercial Policy and Trade Barriers and Public and Private Enterprises already mentioned.

The Legal Group dealt with the protection of industrial property and presented resolutions urging that owners of international trade-marks shall have the right to assign without good will and to license separately but rejecting the draft international conventions on scientific property prepared by the League of Nations. The Congress adopted the resolution.

The Congress passed resolutions suggested by the American and British delegations urging the League of Nations to act immediately for an international convention making bribery a criminal offense in all contracting states and insuring legal redress; also requesting the Council of the International Chamber to appoint a special committee to investigate unfair practices in international trade with a view to defining and suppressing such practices.

American plan favored

IN connection with rail transport, the principal resolutions passed favored introduction of negotiable railway documents such as are used in the United States, through traffic facilities, uniform nomenclature of goods, uniform summertime to coincide with the issue of the international summer railway time-table, and a demand that additional railway charges should only be made for actual services rendered.

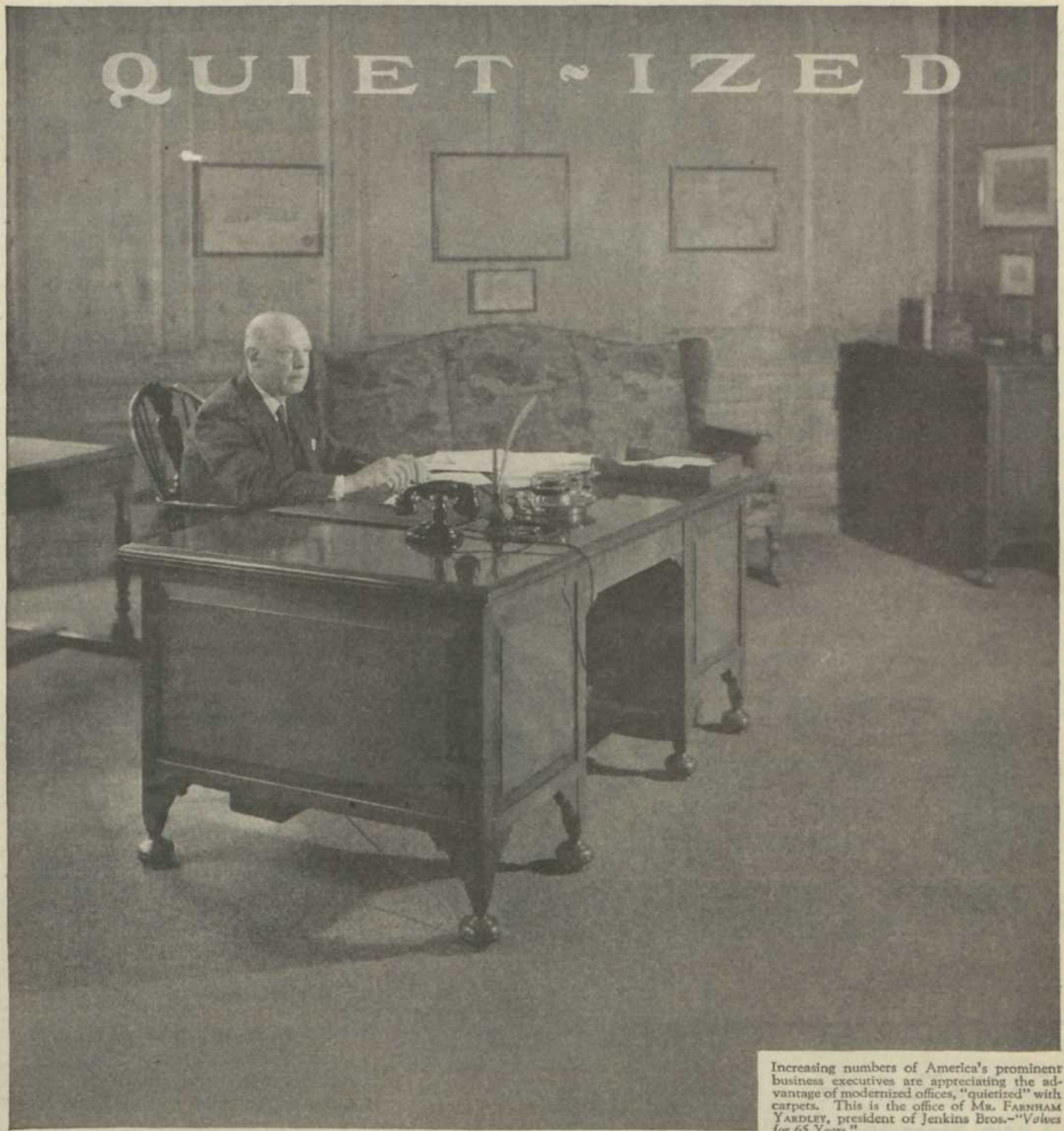
The highway transport resolutions were of more special concern to Europe. They dealt with restrictions on motorists, ordered the preparation of a special report to coordinate available information on highway conditions and statistics in all countries, and an inquiry into methods of highway finance best adapted to road development. Alfred J. Brosseau, president of Mack Trucks, set forth in clear-cut fashion the methods used to expedite road improvement in the United States.

Air transport resolutions recommended simplification of customs and other formalities for air passengers, establishment of free airports, immediate application of the new air mail postal regulations, and through air and rail traffic.

Sea transport resolutions again condemned flag discrimination and superfluous customs and consular formalities. One of the Congress' most important achievements was its unanimous agreement on rules regarding the issue of clean bills of lading against letters of indemnity.

As in the case of the documentary credit regulations, no attempt is to be made to get all countries to pass uniform laws as it is felt that rules voluntarily adopted by the trade and banking associations of the leading commercial countries will obtain the same result.

The transport resolutions closed with



Increasing numbers of America's prominent business executives are appreciating the advantage of modernized offices, "quietized" with carpets. This is the office of Mr. Farnham Yardley, president of Jenkins Bros.—*"Valves for 65 Years."*

ARE you reading this in your office? If so, pause a minute and listen. Noise? Let's analyze it!

Inside—voices, first of all, some deep and rumbling; others high-pitched and penetrating . . . the steady murmur of questions asked and answered . . . staccato-ing typewriters and the rip of adding machines . . . telephones ringing insistently . . . the ceaseless click of heels on hard floors . . .

Outside—motor horns, strident and relentless; cars stopping and starting . . . pneumatic hammers dinning half a block away . . . trolleys grinding 'round a corner . . .

Noise? Yes, a "sound" picture of bedlam—and of the average business office!

* * *

You are an American business man and therefore a creator. Creation implies thought. You must think—and thinking demands quiet. Why not have quiet where your thinking is most productive—where thinking has a dollars-and-cents value—in your office, just as you have quiet at home?

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October
Nation's Business

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a formal request that the International Chamber draft a program for inland waterway regulations, with a special view to the situation on the Danube, to solve the irritating problems connected with customs formalities, conveying and changing of destination of vessels.

The past few years have seen a marked improvement in postal, telephone and telegraph services in Europe. Much credit for this progress belongs to the International Chamber, which has perfected an organization of users in nearly every country acting in unison with it, to obtain better facilities.

The Congress passed a resolution insisting that users' advisory boards be appointed in all countries to cooperate with the postal authorities and that the Universal Postal Union arrange with the International Chamber for appointment of an international advisory committee to be consulted on all matters connected with international postal service. Postal prohibitions, C.O.D. packages and postal orders, the extended use of the green label permitting mailing of dutiable articles, postal facilities for protesting drafts, and improvements in the parcel post service were among the other matters dealt with by resolution.

The telegraph resolutions favored closer collaboration with the various telegraph administrations and reserved judgment on the decisions of the Brussels Telegraph Congress which were not in accord with the International Chamber's demands on behalf of the users. The Congress urged fair trial of the new rules so that final opinion might be based on experience.

On international telephoning

THE telephone resolutions demanded international uniformity of service facilities, provision for international "person to person" calls, and wider publicity by the administrations to inform the public of the various classes of service.

Finally the Congress passed a resolution urging that the League of Nations call a conference to consider calendar reform and stabilization of the date of Easter.

A feature of the Amsterdam Congress was the large number of international organizations represented. In addition to the League of Nations, the International Labor Office, the International Institute for Intellectual Cooperation, all the great international shipping conferences and railway unions sent delegates as did the International Law Association and many legal and technical bodies. In all, 110 representatives

of other international organizations participated. The press was represented by 76 accredited correspondents.

It was with evident emotion that the retiring President, M. Alberto Pirelli, addressed the Congress on the closing day to move the election of his successor, M. Theunis, former Prime Minister of Belgium and Chairman of the Economic Consultative Committee of the League of Nations.

Under M. Pirelli's guidance the International Chamber has made great progress. In two years the membership has increased by nearly 50 per cent. It now has 27 national committees and three other countries promised to join.

M. Pirelli thanked the members for their support and said that all countries great and small had contributed to the International Chamber's success.

M. Theunis, in his speech of acceptance, said that the work of the International Chamber directly affects the happiness and welfare of every man, woman and child in member countries and in others as well. He asked the members to cooperate with him and lend their support, which would be the measure of his achievement.

From an Editor's Notebook

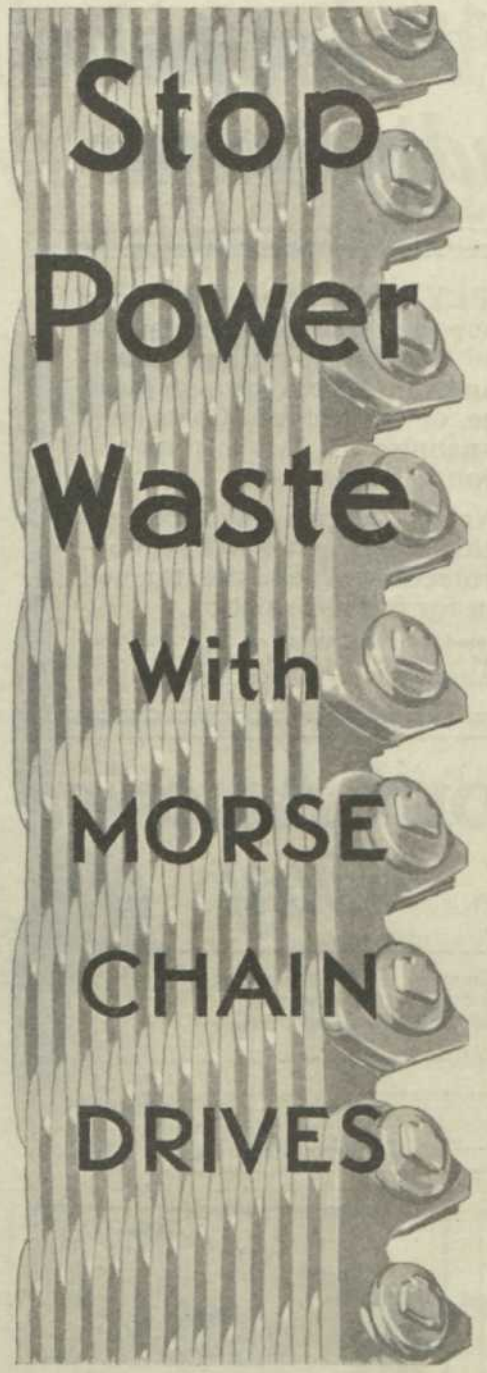
"GOD created the earth but Holland was made by man," so runs an old Dutch saying. There is much truth in it. Most of Holland lies below sea level. The ditches and canals, at times rivers that are big as European rivers go, stand high above the surrounding land, and captains whose vessels are moored to the quays have to climb down long stairways from the waterway to the "polder" where they unload.

♦

AROUND an expanse of sea a dam has been built. The lake or swamp thus created—often hundreds of acres in extent—has been pumped dry, and the soil covered with sea and river deposits has been reclaimed into the most fertile land in the world. The whole landscape is dotted with picturesque toy windmills that pump day and night. The rich pastureland is thickly populated with the black and white Dutch cattle. Flowers grow in untold profusion.

♦

IN THIS swampy soil all the houses must be built on piles. The atmosphere

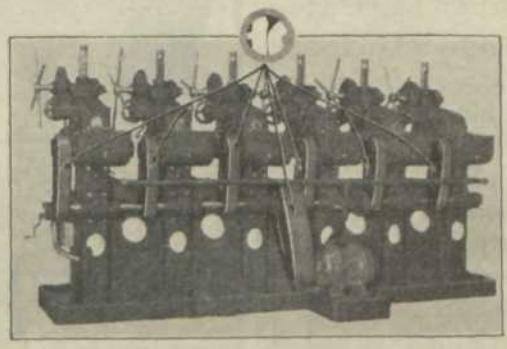


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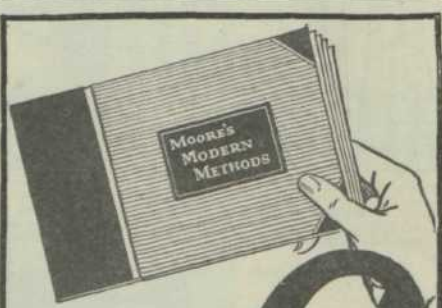
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has a higher humidity than anywhere else on earth, and the reason the Dutch are so clean is simply that if less washing, scouring, scrubbing, and polishing were done the moisture would soon destroy houses and furniture.

♦

HOLLAND is one of the few countries that are both wealthy and prosperous. Although its industries and agriculture are flourishing, the great wealth of Holland comes from its colonies, the Dutch East Indies in particular.

The colonies have 82 times the area of the mother country and seven times its population. They yield 92 per cent of the world's quinine, 84 per cent of the cocoa, 79 per cent of the kapoc, 71 per cent of the pepper, 44 per cent of the agave, 37 per cent of the rubber, 28 per cent of the coconut products, 14 per cent of the tea. Twenty-two per cent of the world's tin comes from the Dutch East Indies and the enormous oil deposits of Borneo and Sumatra have not even been fully explored, to say nothing of precious stones. The rubies of Borneo are of the finest.

♦

THE ONLY city in the world that suffers from a real shortage of motor transport, Amsterdam offers a unique picture of a paradise for the riders of bicycles.

There are no omnibuses to be found in the city, but the tramcar services are highly developed and with the ubiquitous bicycle have impeded the use of motor cars.

Everybody owns a bicycle. A population of some 700,000 owns about 280,000 bicycles. One sees young folk holding hands lovingly as they cycle down the streets, and after business hours the stream of cyclists holds up all other kinds of traffic.

After the session of the Congress it was almost impossible for the delegates to obtain motor transportation to their hotels and there was a general rush for tramcars.

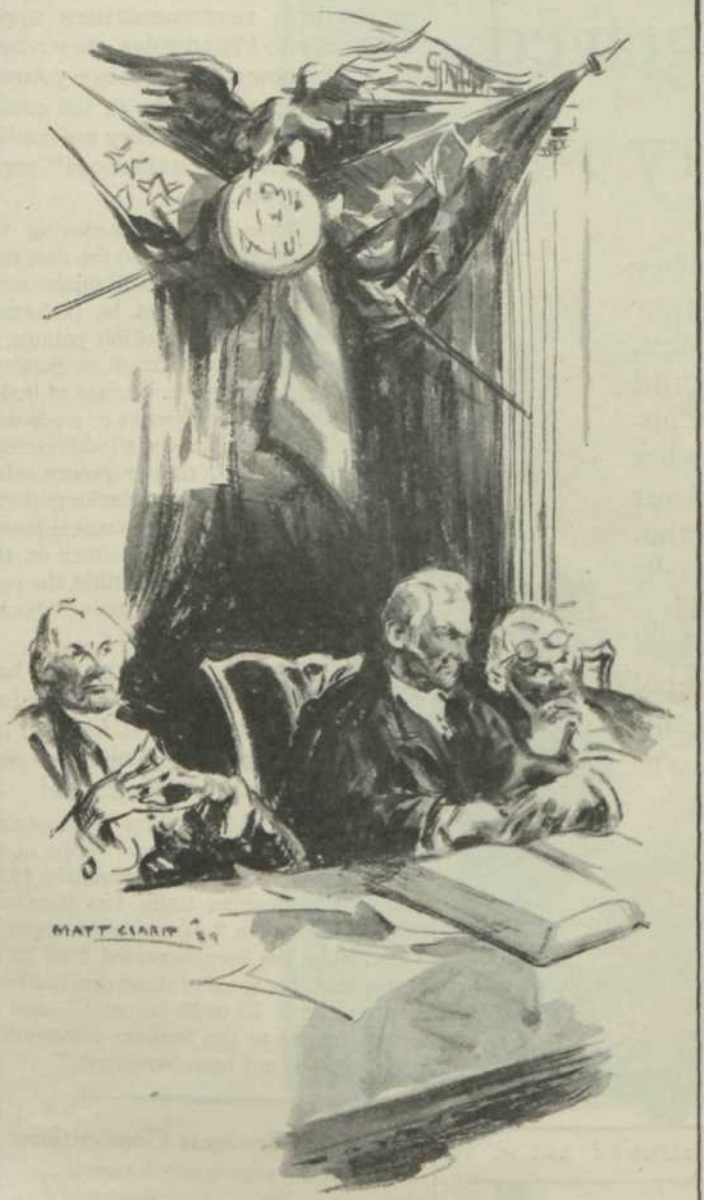
♦

THE serious business of the Congress was most agreeably interrupted Thursday by an admirably organized visit to the ancient city of Rotterdam.

Some of the delegates went by rail, others by the luxury steamer "Slamat" of the Rotterdamsche Lloyd. Everybody reached Rotterdam at about the same time and smaller boats took the guests for a trip around the greatest coal and ore port in Europe.

M. T.

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John Marshall, in 1795

ON December 26th, 1795, a group of leading citizens of Richmond gathered to hear the report of John Marshall on a plan for the organization of the first insurance company in Virginia.

To Marshall, later great Chief Justice of the Supreme Court, and already famous as the most brilliant lawyer in the State, had been given the task of reporting on the soundness of the principles and plan.

The company organized that day was a *mutual* corporation and the principles which Marshall endorsed were the great mutual principles of ownership and management in the hands of policyholders, careful selection of risks, and furnishing reliable insurance at low cost to the insured.

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Mitten Completes Traffic Survey

MITTEN Management has spent $50,000 to make a traffic survey as a contribution to civic progress in Philadelphia. Although the corporation's recommendations apply specifically to Philadelphia, they reflect a situation now common to every American city. The generality of the conditions revealed in this survey are readily apparent in the "miscellaneous" regulations proposed:

Prohibit horse-drawn, slow-moving vehicles from center streets; require that coal deliveries, ash removals and all similar services in the central district be performed outside business hours; prohibit parades in central business district except on Sundays and holidays; prohibit the storage of building materials on the sidewalks or roadways; mark definite traffic lanes on all wide streets; prohibit the moving of theater scenery, safes, heavy building material and similar material on all center city streets in business hours; prohibit all street openings, either on the street surface or manholes, within the central business district during business hours, except in cases of emergency.

Meanwhile, Chicago's vigorous ban on parking in the "Loop" district has brought definite results. As seen by Dewey Fleming in the Baltimore *Sun* they include these improvements:

Accidents of all kinds have been reduced about 10 per cent; passenger traffic of all kinds has appreciated approximately 18.33 per cent; pedestrian traffic has increased slightly more than 2 per cent; the speed of automobiles has been increased from 20 to 30 per cent; the speed of street cars has been increased from 15 to 30 per cent"—and of direct interest to the business community, "business has not been hampered."

Coming Business Conventions

(From information available August 1)

Date	*Place*	*Organization*
Sept. 9-13	Cleveland	American Society for Steel Treating.
10	New York	American Manufacturers Association.
11-12	Birmingham	Southern Nurserymen's Association.
11-14	Del Monte, Calif.	Pacific Coast Gas Association.
16-20	Minneapolis	National Association of Druggists.
18-19	Milwaukee, Wis.	Northwestern Hotel Association.
18-20	Philadelphia	American Industrial Lenders Association.
23	Montreal, Canada	Association of North American Directory Publishers.
23-27	Chicago	American Bakers Association.
25	San Francisco	Shipowners Association of the Pacific Coast.
25-27	Washington	National Association of Life Underwriters.
28 to Oct. 4	Atlantic City	American Electric Railway Association.
30 to Oct. 3	Chicago	Advertising Specialty Association.
30 to Oct. 3	San Francisco	American Bankers Association.
30 to Oct. 4	Chicago	National Safety Council.
30 to Oct. 5	Spokane, Wash.	Northwest Mining Association.

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Mural by Arthur Covey. Wood block engraving by Howard McCormick

WHEN the Norton wheel is taken from the kiln it is not simply a grinding wheel with the sole function of wearing down metal, but a production tool engineered and built to perform a specific high precision work in the fashioning of iron, steel, steel alloys, glass, marble and other materials.

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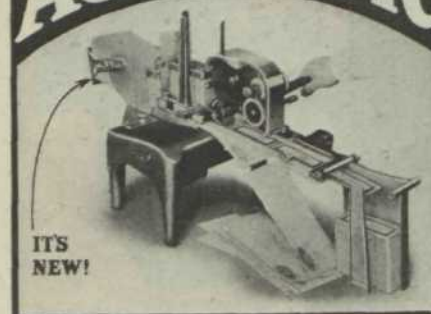
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What the O'Fallon Decision Means

(*Continued from page 29*)

fore the World War, and advanced greatly during it and immediately following it. Prices declined precipitately in 1920-1921, but later recovered much of the ground they had lost, and both wages and prices have since continued much higher than before the war. In a number of cases the Supreme Court held that the consequent increased costs of reproducing the properties of telephone companies, water works companies and other public utilities must be given weight in making valuations of them.

The bases of valuation

A MAJORITY of the members of the Interstate Commerce Commission in the O'Fallon case favored "prudent investment" as the basis of valuation. They included land at its present value; included property constructed before 1914 at its estimated pre-war cost; added the subsequent investment, made a larger deduction for depreciation, and the result was the valuation. Because of the size of the deduction made for depreciation the valuations of most railroads under the Commission's method probably would have been less than the actual investment in them.

The principal question raised in the O'Fallon litigation was whether the Commission was right in refusing to give any weight to the difference between what it had actually cost to create the railway property existing in 1914 and what it would cost to reproduce it at the wages and prices prevailing since prices became stabilized on a new basis following the depression in 1921-1922.

The Supreme Court overruled the Commission, saying, "Congress has directed that the values be fixed upon a consideration of *present costs* along with all other pertinent facts; and this mandate must be obeyed."

A new act of Congress providing that consideration shall not be given to cost of reproduction has been advocated as a means of nullifying the Court's decision. But Congress, in requiring in the La Follette Act that present costs should be considered, merely put into a statute what the Supreme Court always had held was required by the Constitution. Therefore, the Court unquestionably would hold unconstitutional an act prohibiting the consideration of present costs.

How much effect will the Court's decision have upon the valuation of the railroads? Estimates have been published that it will increase it by $10,000,000,000 to $20,000,000,000. They have been premised upon the assumption that the Court held that the valuation must be based entirely upon present costs. There probably would be a difference of $10,000,000,000 between a valuation of all the railroads made according to the method favored by the Interstate Commerce Commission, and one based entirely upon the cost of reproducing them.

Assuming that the railways would be entitled to earn a return of 5¾ per cent upon it, this increased valuation would theoretically justify an advance of more than a half billion dollars annually in rates, or the equivalent of 10 per cent in all rates or of 12 per cent in freight rates alone.

It has often been suggested that if the Interstate Commerce Commission were forced to make a valuation that it considered too large, it could prevent the railways from charging higher rates by the simple expedient of changing its mind as to what is a "fair return." The law directs the Commission to decide what will be a fair return for each group of railways, and it has held that this would be 5¾ per cent.

The weakness of this theory is that the Supreme Court has not only held that railroads and public utilities are entitled to a fair valuation, but that it has as definitely and repeatedly held that they are entitled to a fair return upon such a valuation, and that it has held returns exceeding 5¾ per cent to be fair but apparently has never held that any return less than this would be fair.

The future of rail stocks

CONGRESS and its agent, the Commission, have no more constitutional power to fix the percentage of return the railways may earn at any figure they like than they have to fix the valuation on which it shall be earned at any figure they like. It seems extremely doubtful, therefore, that the Supreme Court would hold that any return of less than 5¾ per cent would be fair.

May the owners of railway stocks look forward, then, with complacency and confidence to a great advance in the value of their securities as a result of the Supreme Court's decision in the O'Fallon case? Must the public, for the same



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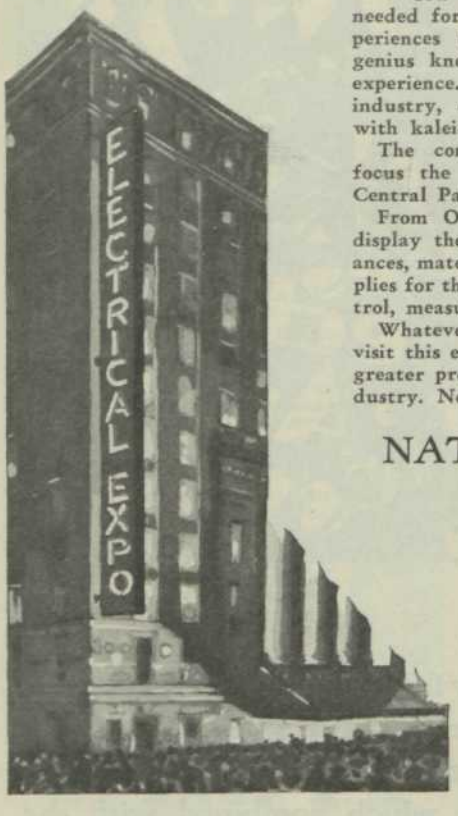
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reason, prepare itself to bear a large advance in railway rates? It is remarkable how many persons have made confident predictions regarding the probable effect of the decision without having taken the pains to read it.

The Court did not hold, as is so generally assumed, that the valuation of the railroads should be based entirely on the present cost of reproducing them. It said that this should be considered "along with all other pertinent facts," and also that "the weight to be accorded thereto is not the matter before us. No doubt there are some, perhaps many, railroads the ultimate value of which should be placed far below the sum necessary for reproduction."

Obviously, as other pertinent facts must be considered, and as the valuation of some or many railroads may be made much less than the cost of reproducing them, all estimates which assume that the valuation must be based entirely on costs of reproduction are valueless, excepting, possibly, for one purpose. If made in a reasonable way, they show that even a valuation based on full cost of reproduction would not justify an average increase in railway rates of more than 10 per cent. From that it necessarily follows that the increase in rates theoretically justified by any less extreme method of valuation would be still less.

Larger valuation is certain

THERE is only one thing that may be said with entire confidence regarding the effect of the Supreme Court's decision. In the long run it will result in the railways getting a larger valuation than the Interstate Commerce Commission intended to give them. How much larger it will be nobody knows, because nobody knows how much weight will be given finally to present costs.

What the railways have actually cost, and what it would cost to reproduce them now, are unquestionably the principal factors to be considered. If the Commission should "split the difference" between these two factors, it would probably arrive at a total valuation of $28,000,000,000 to $30,000,000,000. Theoretically that would justify an average advance in rates of five or six per cent to enable the railways to earn 5¾ per cent upon the higher valuation.

But theory and practice are different things. The railways might conceivably, in actual practice, increase their net operating income enough to earn a fair return upon a largely increased valua-

tion without any advance in rates at all. They might also voluntarily refrain from making any substantial general advance in their rates, even though theoretically they had the power to make it and it was needed to enable them to earn a fair return upon an increased valuation. In spite of all the regulation to which it is subject, railroading is a business. Being a business, it is not entirely dependent upon advances in its charges for increases in the net return it earns, nor can it fix its charges regardless of what its customers can or will pay.

Increasing the net income

THE net operating income earned by the railroads is the difference between their total revenues, on the one side, and their operating expenses and taxes, on the other. Other things being equal, an increase in their total traffic or an increase in their efficiency of operation will increase their net operating income and the percentage earned upon their investment or valuation.

Here are some facts:

The railways are paying more taxes now than ever before.

The railroads have been losing passenger business ever since 1920.

The average wage of their employes has increased in every year since 1923.

Their average rate per ton per mile has declined in every year since 1921.

Nevertheless, the railroads are this year earning a larger percentage of return upon their property investment than in any year since the war. They are handling a record-breaking freight business, and have effected economies in operation.

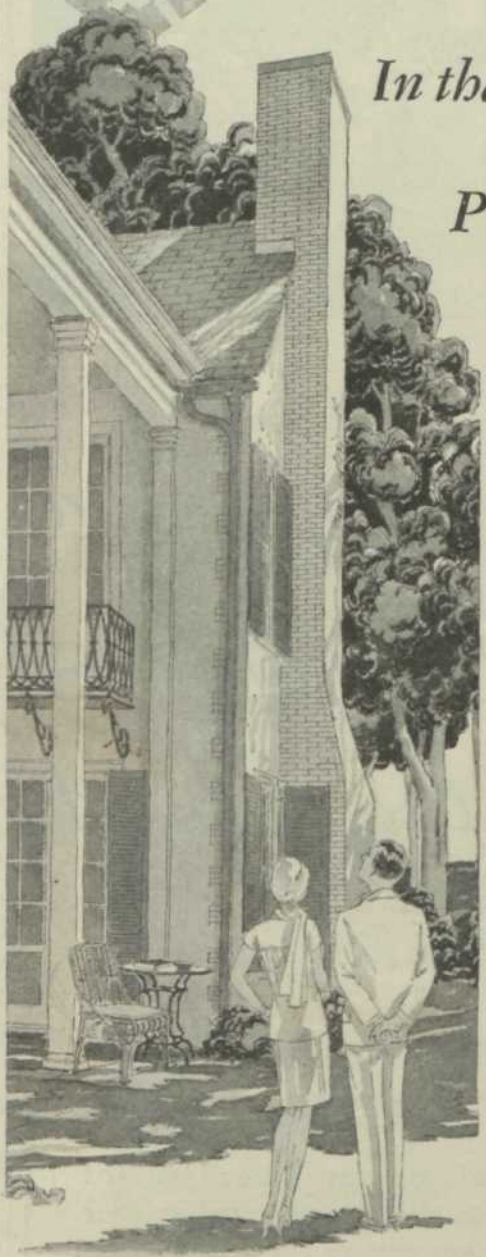
Their operating expenses in 1928 were almost half a billion dollars less than in 1923.

How have these economies been brought about? Principally by investments in improved equipment and in other facilities enabling them to produce more transportation with a given amount of labor, fuel and materials.

The net operating income earned by the Class I roads in 1928 was equivalent to a return of 5¾ per cent on a valuation of only $20,400,000,000. If, however, they had had in 1928 the same tax as in 1923, the same average wage to pay, the same earnings from passenger business and the same average revenue per ton mile, they would have earned a net operating income equivalent to a return of 5¾ per cent on a valuation of $32,000,000,000.

These facts raise some important questions. Is the Government to con-

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tinue to aid in diverting traffic from the railways by spending large sums upon waterways and highways and failing to make adequate charges for the use of these waterways and highways or to regulate the carriers upon them as the railways are regulated?

Are railway taxes to continue to increase? How fast are railway wages going to continue to increase? Is the Government going to insist on reduction in freight rates under the Hoch-Smith resolution to aid depressed industries?

The answer to these questions will probably determine in much larger measure than the Supreme Court's decision in the O'Fallon case whether substantial upward revisions of rates will be needed in the future.

The decision affects only the amount of net operating income the railways may earn. For some years it has taken more than 80 per cent of their total earnings to pay their operating expenses and taxes. Therefore, operating expenses and taxes have exerted four-fifths, and net operating income only one-fifth, of the influence that has determined the level of rates; and, in spite of the O'Fallon decision, the growth of railway traffic and changes in operating expenses and taxes probably will continue to exert a proportionately larger influence than the net return allowed to be earned upon the general level of rates.

The bases on which rates rest

THAT the final valuation will be larger than it would have been if made in accordance with the method favored by the Interstate Commerce Commission there can be no question, but whatever the changes in rates in the future may be, we may feel quite certain that no early horizontal advances will be made for the express purpose of enabling the railways to earn a return upon a larger valuation. Rates must be based not only on what the railways have a legal right to earn on valuation, but also on "what the traffic will bear," and what the traffic will bear at any given time depends upon competition between the railways themselves, and between them and other means of transportation, and upon industrial and commercial conditions of many kinds.

The railways have no more legal right to make rates that will be burdensome to traffic than the Government has to keep them from earning a fair return upon a fair valuation if they can do so while charging reasonable rates. Furthermore, railway managers are business

Hard Hitters and Straight Shooters

Let's have more of them

There are no handsomer, healthier youngsters in the world than those who storm our parks and recreation centers every weekend. Here are no watchers. Here are players. Here are no skinny, envious critics. Here are young men and women on the firing line of sport; brown, vigorous, graceful.

One of the most amazing developments in our social life has been the rise of amateur sports during the last two decades. And the SCRIPPS-HOWARD Newspapers have encouraged it with every resource at their command.

There are now amateur baseball, tennis, basketball or golf organizations in all important cities. And the local SCRIPPS-HOWARD Newspaper prints their scores, reports their tournaments, leads any fight for a new club-house, a new community gym or swimming pool, or a new park.

Today, all SCRIPPS-HOWARD Newspapers are helping to develop formidable contestants for tomorrow's National Amateur Championship honors by the liberal editorial consideration they give to the stars of the prairie ball lot, the public golf course, the neighborhood tennis courts and other public recreational centers.

"Waterloo was won on the playing fields of Eton," said the Duke of Wellington. And in the fast, highly competitive life facing our coming generation, the hard hitters and the straight shooters will have the edge.

Let's have more of them.





NEW YORK *Telegram* SAN FRANCISCO . . *News* BUFFALO . . . . . *Times* COLUMBUS . . *Citizen* HOUSTON . . . *Press* KNOXVILLE *News-Sentinel*
CLEVELAND . . *Press* WASHINGTON . . . *News* INDIANAPOLIS . *Times* AKRON . . . . *Times-Press* YOUNGSTOWN *Telegram* EL PASO . . . . . *Post*
BALTIMORE . . . *Post* CINCINNATI . . . . . *Post* DENVER *Rocky Mt. News* BIRMINGHAM . . . *Post* FORT WORTH . . *Press* SAN DIEGO . . . . *Sun*
PITTSBURGH . *Press* COVINGTON *Kentucky Post* TOLEDO . . . . *News-Bee* MEMPHIS *Press-Scimitar* OKLAHOMA CITY *News* EVANSVILLE . . . *Press*
—*Kentucky Edition of Cincinnati Post* ALBUQUERQUE . . . . *New Mexico State Tribune*

SCRIPPS·HOWARD
NEWSPAPERS

MEMBERS OF THE AUDIT BUREAU OF CIRCULATIONS . . . . OF THE UNITED PRESS AND OF MEDIA RECORDS, INC.

NATIONAL ADVERTISING DEPT., *Stuart S Schuyler*, DIRECTOR, 230 PARK AVE., NEW YORK, CHICAGO, SAN FRANCISCO, DETROIT, LOS ANGELES, ATLANTA, PHILADELPHIA, BUFFALO, DALLAS

For Stock Issues

Earnings are a basic factor in stock issues. Fixed property charges—depreciation, maintenance and renewals — are basic factors in establishing earnings. American Appraisal Service supplies these basic property facts, strengthens a stock issue.

THE AMERICAN APPRAISAL COMPANY

A NATIONAL ORGANIZATION

men who know that a rate high enough to interfere with the movement of traffic is even more economically unsound, from a railway standpoint, than one that is lower than economic conditions warrant.

The O'Fallon decision, by giving the railways a legal claim to a larger net operating income than the Interstate Commerce Commission otherwise would have let them earn, will be an obstacle to reductions of rates, and an argument in many instances for advances. By helping the railways to get a larger annual net operating income it will aid them to raise more capital for improvements.

These improvements will tend to reduce operating expenses, as similar improvements always have. The reduction of operating expenses tends to reduce the level of rates required to enable the railways to earn a fair return upon any given valuation. Thus it is by no means certain that the O'Fallon decision will result in railway rates being made any higher than they would have been.

Assuming that in the long run the decision will result in the railways being allowed to earn a substantially increased net operating income, its tendency will be to increase the prices of railway stocks. The Commission was influenced in reaching its decision as to how a valuation should be made by the consideration that a valuation which gave weight to present-day costs would tend to boost the prices of railway stocks.

How prices have changed

WHAT has actually happened to the prices of securities in general as a result of the changes that have occurred since before the war? The Dow-Jones averages are our best barometer of the changes in security prices from year to year and over periods of years.

On June 14, 1913, the year the La Follette valuation act was passed, and about a year before the war in Europe began, the average price of the stocks of 20 representative industrial corporations was $75.52, and the average price of the stocks of 20 representative railroad corporations was $104.75. On June 14, 1929, the corresponding average price of industrial stocks was $313.68, and of railroad stocks $154.18.

The increase since before the war for industrial stocks had been 315 per cent, and for railroad stocks only 47 per cent. As the enormous increase in the prices of industrial stocks has not upset the economic universe, it does not seem likely that a somewhat greater increase in the prices of railway stocks than has already occurred would be wholly destructive of the public welfare.

39 *consecutive* issues of NATION'S BUSINESS to keep you informed of every important trend in business until November, 1932!



To the U. S. Chamber of Commerce
Washington, D. C.

Send me NATION'S BUSINESS, your official monthly publication, beginning with the October number. Bill me later for $7.50 for the three year term-subscription (OR: I enclose remittance with this coupon).

NAME .....

ADDRESS .....

CITY AND STATE .....



Why not provide your Executives with Roller Skates?

OF course you wouldn't think of doing it. But, did you ever stop to consider the miles busy executives walk each day in carrying important papers, letters and instructions between departments . . . the time secretaries and clerks spend away from their desks . . . how mail is often delivered in fits and starts . . . written instructions carried around by the "chief" himself or left in the route basket awaiting a messenger . . . how orders are needlessly delayed in their trip from office to office because of "off-side" conferences on last night's events which eat deeply into working hours? Then ask yourself this question—is the roller skate suggestion so absurd after all?

But, American ingenuity has found a better way. It is by means of Lamson Pneumatic Tubes which do for the written message what the telephone does for the spoken word. Silently, swiftly, they carry your instructions from one department to another. Necessary papers are sent to destination immediately at a speed ten times faster than a man can walk. Mail is delivered in a steady stream. There can be no "peak" hour when everyone is "swamped" under a deluge of "rush" matters.

It will cost you nothing to find out what pneumatic tubes can do in your business. A Lamson engineer, backed by an organization with fifty years' experience, is at your service. Let him study your problem. Write us and he will call.



This book "Wings of Business" tells in an interesting way what pneumatic tubes are doing for business organizations. A copy will be sent you for the asking.

THE LAMSON COMPANY, SYRACUSE, N. Y.

Offices in Principal Cities

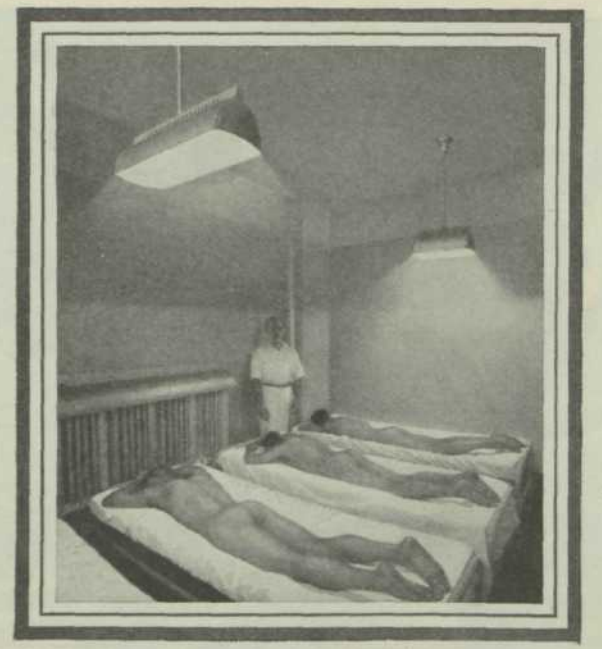
LAMSON

PNEUMATIC TUBE SYSTEMS

Speed the Departmental Interchange of Papers, Files and Messages

How busy members of the Illinois A. C. keep fit

Use this modern method at your club



The quick, two-minute way to feel always fresh and energetic

THE BURDICK SOLARIUM

. . . . constitutes one of the QUICKEST, most enjoyable, dependable means to combat that "tired feeling". You simply relax on the cot and let the Burdick Ultra-violet Solarium lamps flood you with "health-rays" for several minutes.

Each treatment serves as a powerful tonic to frayed nerves, substitutes vigor for lassitude, fortifies against colds and common ills, enables refreshing sleep, and promotes sound health generally.

That is why the Burdick Solarium room is now one of the most popular features at the New York Athletic Club, the Union League Club of Chicago, the Harvard Club of Boston, and many others known to you.

So enjoy these brief super-sun baths at **your** club . . . they're as good for you as a day in the sunshine. The members of the Penn Athletic Club . . . including many physicians . . . fortified themselves with over twenty-five thousand Burdick Solarium treatments last year.

If your club lacks this modern health factor, this authoritative Burdick achievement, use the coupon to obtain facts of interest to you and to your club management.

THE BURDICK CORPORATION, Milton, Wisconsin
Largest Exclusive Manufacturers of Light Therapy Equipment in the World

THE BURDICK SOLARIUM
—Operated Under Medical Supervision.

THE BURDICK CORPORATION
Milton, Wisconsin Dept. 240
Kindly send printed matter regarding the Burdick Solarium.

Name _____
Address _____
My Club is _____

When writing to The Burdick Corporation *please mention Nation's Business*

John Hancock, Merchant Prince

(*Continued from page 49*)

Sorts, Gold and Silver Buttons, Wrought Plate of all Sorts, Diamond, Stone and Paste Ware, Snuff, Mustard, Clocks and Watches, Silversmiths and Jewellers Ware, Broad Cloaths that cost above 10 s. per Yard, Muffs Furrs and Tippets, and all Sorts of Millenary Ware, Starch, Womens and Childrens Stays, Fire Engines, China Ware, Silk and Cotton Velvets, Gauze, Pewterers hollow Ware Linseed Oyl, Glue, Lawns, Cambricks, Silks of all Kinds for Garments, Malt Liquors & Cheese.

How was this intricate business of import and export managed, directed and recorded? The Hancock books were kept in single entry, though the Italian method of double entry was known and taught in the colony. A letterbook, including entries from 1762 to 1793, has been preserved, which aids in understanding the Hancock methods.

The classic John Hancock signature appears from time to time. We know that it was the habit of the great merchant to use iron filings instead of sand, as the predecessor of our modern blotting paper.

His letterbook contains all sorts of advice about details of business, now suggesting caution and now proposing expansion. He will take no nonsense from his correspondents who complain that trade is so poor that they are unable to remit, or that they cannot find the goods for which he asks. He proposes something resembling an oil trust among the magnates in the whale products business. He is after his retail shops, to know what they are doing—and why.

Business English of the day

HE has managers and agents and correspondents widely scattered. These documents contain some curious business phrases, such as, "to fault you"; "a gone people"; "for form's sake"; "should be fond of—," which is a colonial form of "I should smile."

The Hancock papers also throw some light on the hazards of business during the Revolution and also upon the variety of business of a great house. Here can be seen a receipt for goods delivered by John Hancock in "the sloop, myself, master"; invoices of exports and statements of balances in England; receipts for payments; a "waste book," which appears to be a book of original entry; "a journal by God's permission in the *Rebecca* from London towards Boston

By James Scott"; a volume recording cash payments.

It includes such entries as "Boston, Jany. 27, 1783—Sir, This will acquaint you, that His Excelly hath Employed, and given me in charge to Settle & close his books, and receive payments of such Notes of hand as have laid an unreasonable time—Mr. John Crandon, Wm. Hoskins, Dartmouth."

In the correspondence are embedded duns and counter duns, as for instance, apropos of unpaid obligations, "Methinks if your Principles are honest, and your disposition Such as to help Square with Mankind, you would before this have made some Advance as towards lesening the demand 'to Phineas Lovett of Mendon—note 16 years back.' "

Any modern business man will sympathize with a letter of August 26, 1786, from William Greenleaf of Leominster, "the necessity which is incessant in the time for cash, with the disappointments from several persons oblige him as his last resource to fly to you, requesting a humble share of your assistance in the collection of a large sum he is obliged to make up—He would not ask it before . . . if not the amount of the note which is L 266 13s 4d, the sum of 200 pounds would be of extream service."

(Part II of Professor Hart's article will appear in the October issue of NATION'S BUSINESS)

The Dairymen See It Through

(Continued from page 42)

York, the executive committeemen of the Dairymen's League among them. In Louisiana there was an indictment under the federal law.

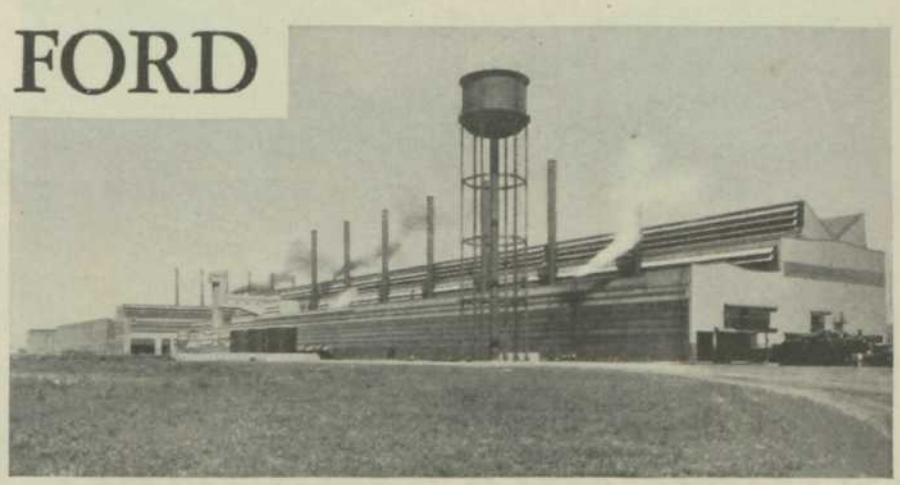
While none of these indictments resulted in convictions, farmers clearly saw that cooperative marketing organizations could not continue if they were compelled to exhaust their resources in defending their right to live.

A campaign to clarify both state and federal laws was inaugurated. By the Capper-Volstead Federal Law of 1922 and by state statutes in more than 40 states, farmers were given the clear right to combine to market their products collectively.

This discussion of the origin and development of the Dairymen's League has left untouched a truth which was of supreme importance to its success—that no large group movement can long continue unless founded upon ideals

Nationally known users of Fenestra

FORD



The Ford Steel Plant, Dearborn, Michigan. Equipped with Fenestra Steel Windows and Fenestra Operators. *Contractors:* Blair Construction Company, Detroit.

IN THIS mammoth Ford Steel Plant at Dearborn, Michigan, 8000 units of Fenestra Steel Windows were used—every square foot of floor space is Fenestra-flooded with daylight.

Opened quickly, easily and closed snug-tight by 250 operators, these great Fenestra walls of glass insure efficient airation throughout the group of buildings—provide bright, cheerful, healthful, working quarters for Ford workmen. And sturdy Fenestra construction will keep these fire-resisting windows on the job for years.

In factory and mill buildings, power houses, shops and warehouses everywhere, these better steel windows are performing a similar service. Today there are nationally known users of Fenestra in every branch of industry. (See partial list of steel and motor car companies opposite.)

If you contemplate the erection of new plant buildings of any kind, the service of Fenestra's Research Engineers is available to you without obligation. In advance of construction, they can help you predetermine the daylighting and airation results of any window arrangement. Phone the local Fenestra office.

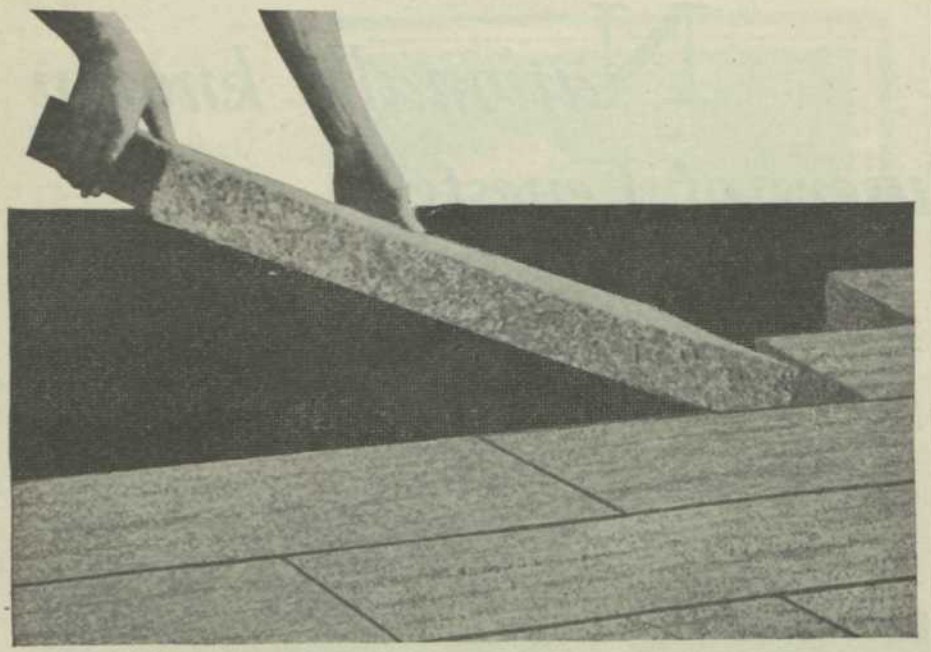
DETROIT STEEL PRODUCTS COMPANY
2292 East Grand Boulevard, Detroit, Mich.
Factories: Detroit, Mich., and Oakland, Calif.
Convenient Warehouse Stocks

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Cadillac Motor Car Co.
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International Motor Corp.
Peerless Motor Car Co.
Studebaker Corporation
White Motor Co.
Pierce Arrow Motor Car Co.
Oldsmobile Co.
Graham-Paige Motor Car Co.
Willys-Overland Co.

—in the steel industry
Crucible Steel Co.
Bethlehem Steel Co.
Carnegie Steel Co.
American Rolling Mill Co.
Commonwealth Steel Co.
Illinois Steel Co.
National Tube Co.
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American Steel & Wire Co.
Wheeling Steel Corporation
Youngstown Sheet & Tube Co.

Fenestra
steel windows

When writing to DETROIT STEEL PRODUCTS COMPANY *please mention Nation's Business*



Adequate thickness in a *single layer*



EVERY roof needs insulation and, for average conditions, the insulation should be an inch and a half or two inches thick. Where there is condensation and "ceiling sweat," even more may be required. With Armstrong's Corkboard, the full thickness needed for any condition can be laid in a single layer. Single layer insulation not only costs less to install, but makes a stronger and more substantial base for the roofing. In any thickness, Armstrong's Corkboard will not buckle or swell and has no laminations to separate under changing temperature and humidity.

Armstrong's Corkboard is nonabsorbent. It stays dry and, therefore, retains permanently its full insulating value. Roofing laid over it lasts just as long as if applied directly on the deck.

Write for the 32-page book, "The Insulation of Roofs with Armstrong's Corkboard," or if you have a high humidity condition in your building, the companion book, "The Insulation of Roofs to Prevent Condensation." Armstrong Cork & Insulation Company, 903 Concord Street, Lancaster, Pa.; McGill Building, Montreal; 11 Brant Street, Toronto.

Armstrong's Corkboard Insulation

for the Roofs of All Kinds of Buildings

When writing to Armstrong Cork & Insulation Company *please mention Nation's Business*

that appeal to the best instincts of men.

What impelled an ever-growing number of depressed farmers to continue for 11 years to contribute money, time and energy in the building of an organization? Why did they support that organization for several years after it commenced operation despite the fact that during those years nonmembers were receiving higher prices than members?

The answers will be found in the farmers' grim determination to build an organization that would maintain better rural conditions for themselves and for their children. They found that their depressed financial condition was directly and harmfully reflected in their standards of living. They saw the standards of rural life steadily falling.

They perceived that these conditions could be corrected only by group action; that while the economics of agriculture dictated individual production, the farmers must engage in mass distribution.

They did not underestimate the difficulties to be met, nor do they now underestimate the difficulties yet to be met. But, learning from both mistakes and successes, they are content if each succeeding decade shows substantial progress.

A typical experience

THIS story of the Dairymen's League is, with minor differences, the story of many of the large and some of the small cooperative milk marketing organizations.

Forty-four of these organizations are now affiliated nationally in an association known as the National Cooperative Milk Producers' Federation, which functions as a clearing house of information; as an investigating body; and, when authorized, as spokesman for all member associations upon national questions.

While the collective marketing of any farm product brings problems peculiar to that product, there are certain things common to all branches of such marketing.

There is no room in the movement for professional promoters, nor for mushroom organizations.

Cooperative marketing associations must go slowly if they are to go safely. They should expand their business only as they develop personnel to handle that business.

Finally, they should recognize that no mass meeting, however enthusiastic, no overnight inspiration, no signing on the dotted line, but only long and patient effort can bring success.



The Largest Surface Condenser in the South—

A WORTHINGTON

IN the new Gorgas Steam Plant of The Alabama Power Company, the spirit of the New South has been admirably expressed. Evidence of the thoroughness and foresight on the part of its designers is apparent in their selections of equipment.

The 50,000 kw. General Electric Turbo-generator exhausts to a Worthington 70,000 sq. ft. Horizontal Two-pass Condenser of the folded tube-layer type.

Worthington auxiliaries serving this unit consist of two 48-in. Centrifugal Circulating Pumps, two 6-in. 2-stage 3-impeller Centrifugal Condensate Pumps, one Double No. 30 2-stage Steam Air Ejector and one Air Meter.

The use of Worthington equipment in this modern plant is significant . . . it is the best possible proof that Worthington is qualified to serve *you* in the solution of *your* power service problems.

WORTHINGTON PUMP AND MACHINERY CORPORATION
Works: Harrison, N.J. Cincinnati, Ohio Buffalo, N.Y. Holyoke, Mass.
Executive Offices: 2 Park Avenue, New York
General Offices: Harrison, N. J.
Branches in 24 United States Cities Representatives in all Foreign Countries

WORTHINGTON

PUMPS
COMPRESSORS
CONDENSERS *and* Auxiliaries
DIESEL ENGINES
GAS ENGINES
FEEDWATER HEATERS
WATER, OIL *and* GASOLINE METERS

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THIS is the sixteenth of a series of editorials written by leading advertising men on the general subject of «Advertising»

★

Advertising Is A Public Servant

TWENTY-FIVE YEARS ago the First Families of Businesstown looked askance at advertising.

Like all children, his imagination sometimes twisted things and he sailed away to foreign shores from the branches of the old elm.

Today he has become a man, and it is interesting to see the friends he has made; friends who are actively engaged in helping him grow into greater strength and usefulness.

GOVERNMENT: with its Chief Executive recognizing the place of advertising in the great economic family; the Census Bureau digging up facts on which advertising can base sound policies; the Department of Commerce, with friendly hands stretched out.

PRODUCTION: showing a growing deference to an estimate of consumption founded on long and intensive study and work in the market field and an increasing acceptance of advice on securing a balanced output to avoid peak-loads as well as overproduction;

DISTRIBUTION: with a more serious acceptance of the fact that advertising is a business function and neither a blood cousin to the side-show barker nor a magical cure-all for business ills;

FINANCE: with its modern attitude on the insurance of invested funds through better market control, and of the influence of advertising on that control; and, finally,

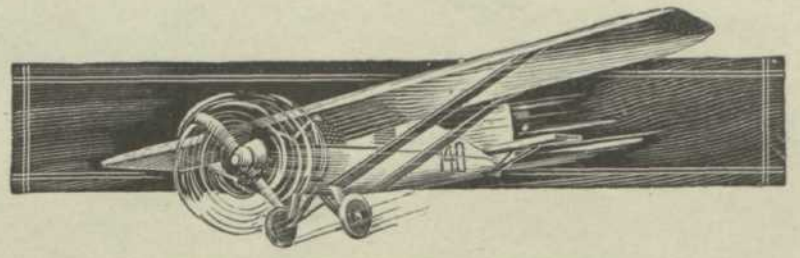
THE PUBLIC: which has demonstrated its growing confidence in advertising's veracity and integrity and has exhibited a growing reliance on advertising as the dependable source of information and guidance in all the ways of living better, happier and more comfortable and profitable lives.

Advertising—call it science, art, profession or just business, as you will—has come to man's estate and bears a heavy responsibility—for moulding public opinion, directing the people's wants and tastes and elevating the nation's standard of living.

C. C. YOUNGGREEN,
Klau, Van Pietersom, Dunlap, Younggreen, Inc.

For Airports and Industrial Buildings

Sheet Metal offers a practical, durable and economical construction material that is strong, *fireproof and satisfactory*



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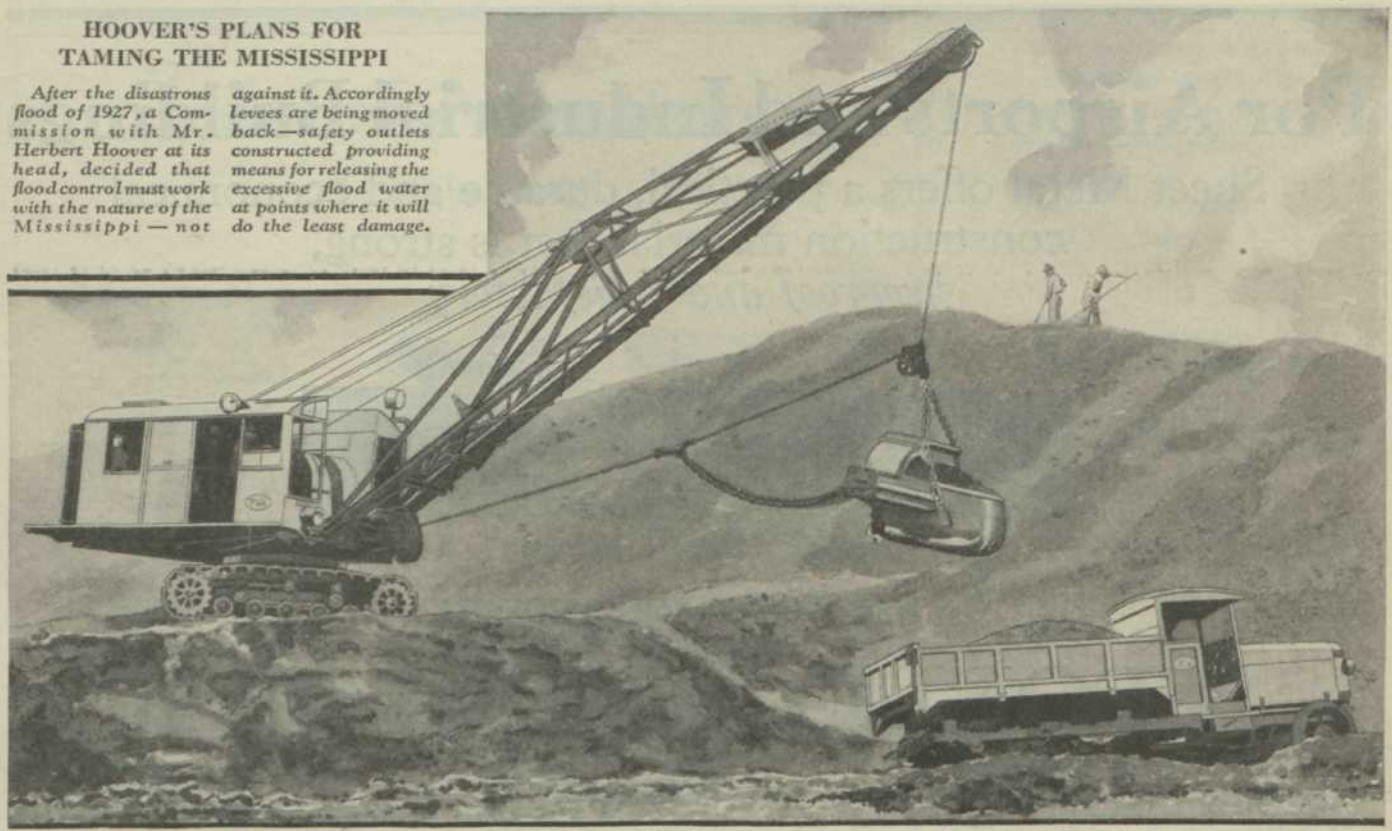
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